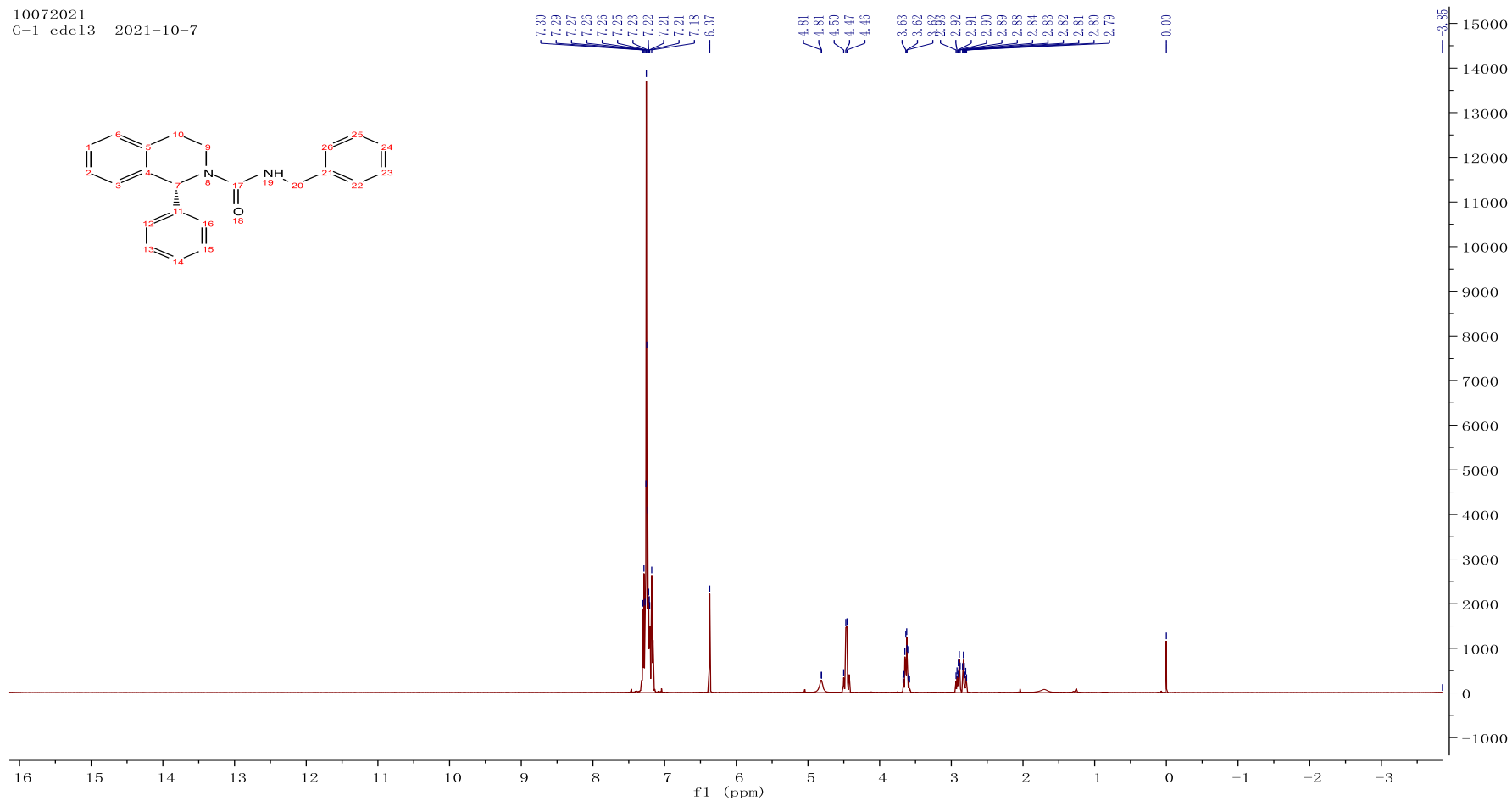
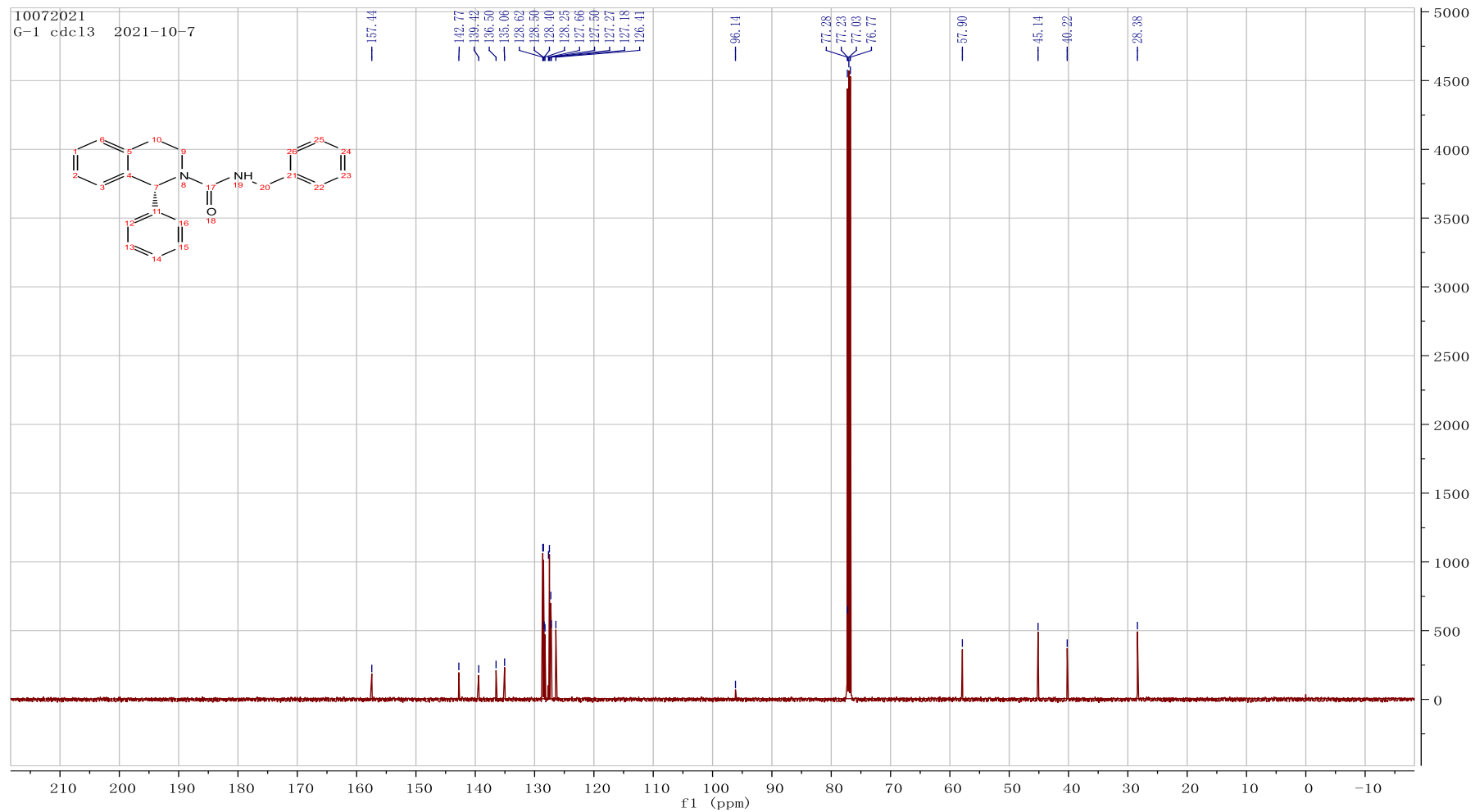


10072021  
G-1 cdc13 2021-10-7

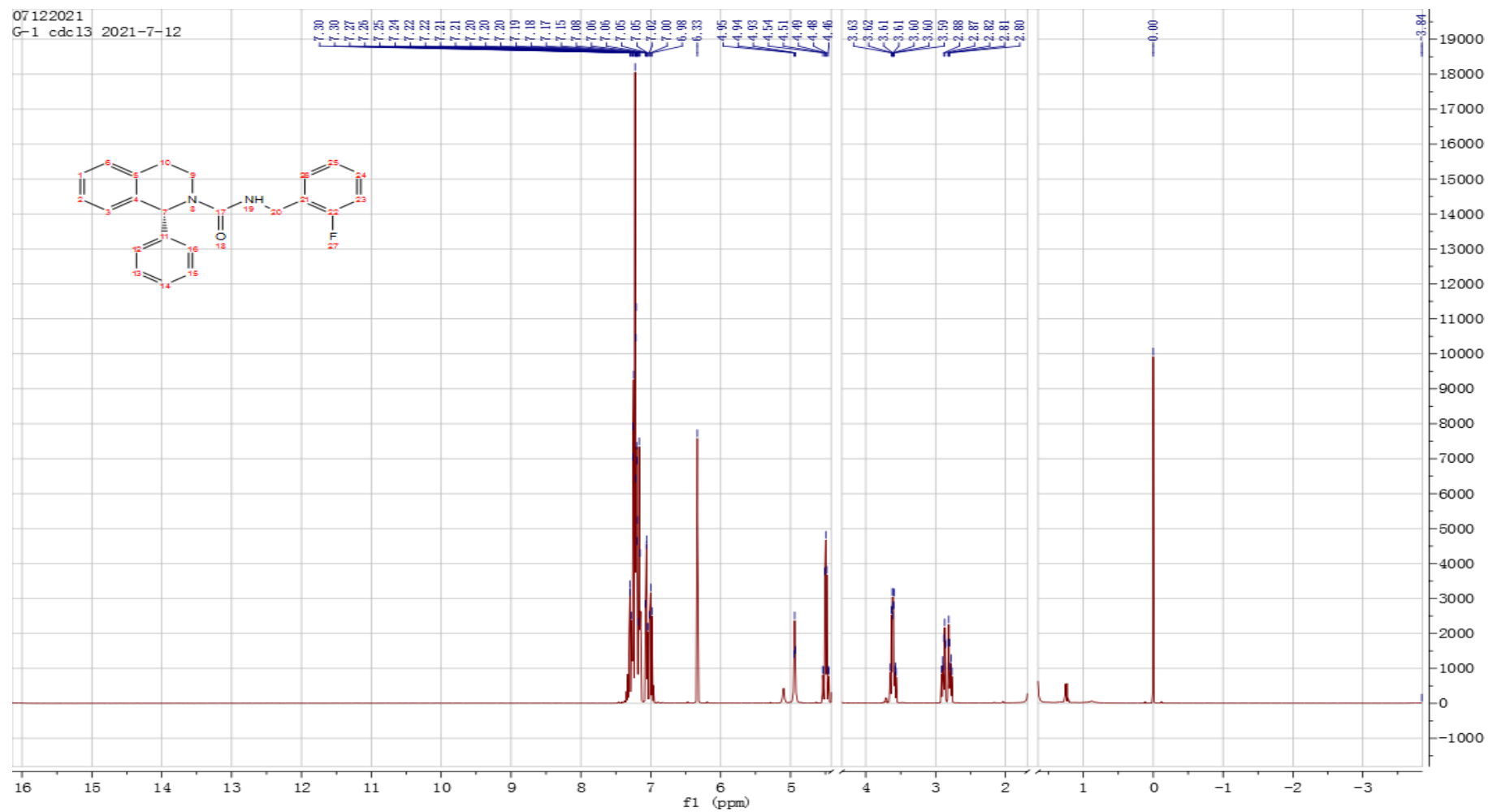


$^1\text{H}$ -NMR Spectral of **2a**



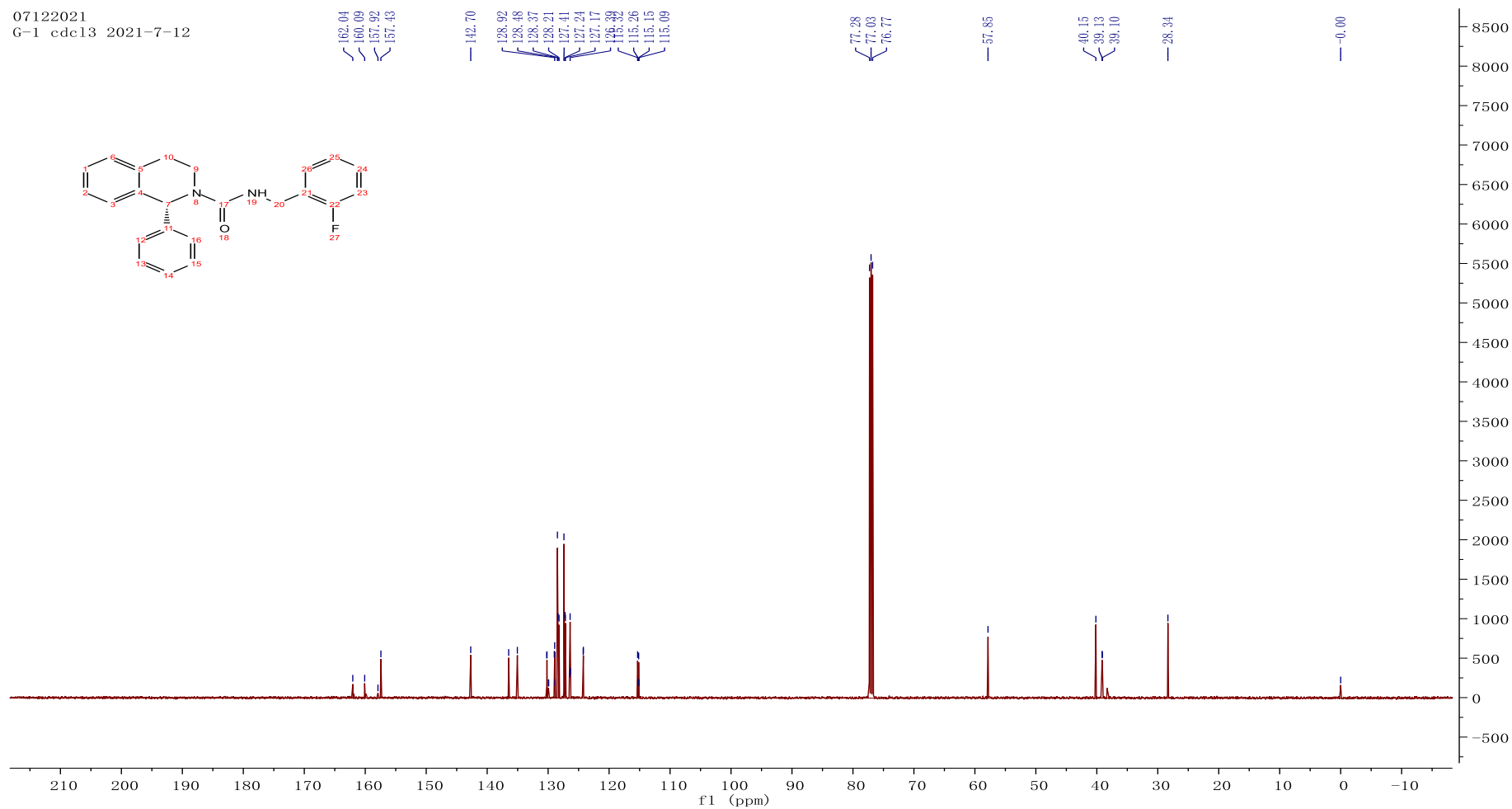
<sup>13</sup>C-NMR Spectral of **2a**

07122021		
G-1 cdc13	2021-7-12	



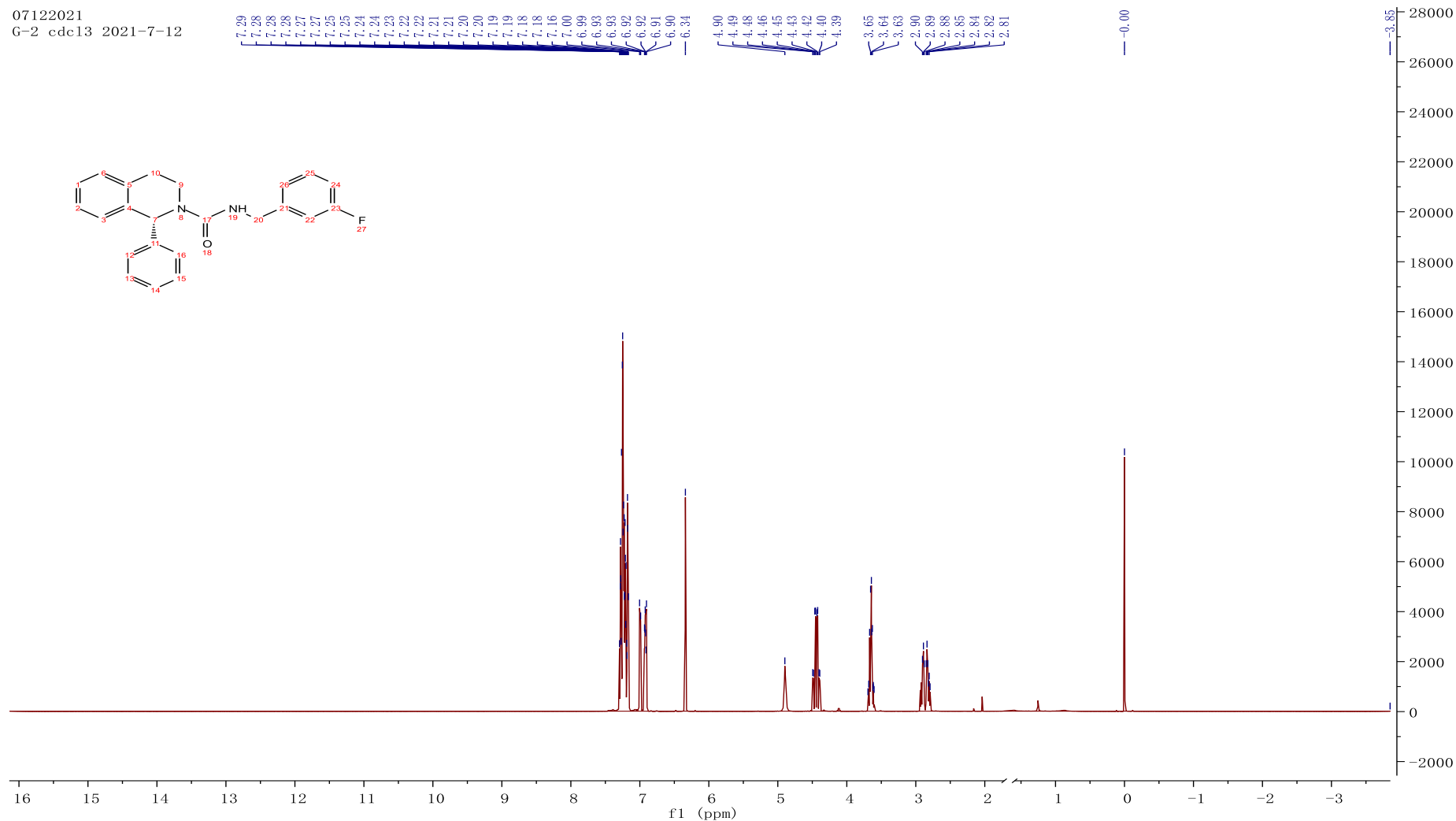
### <sup>1</sup>H-NMR Spectral of **2b**

07122021  
G-1 cdcl3 2021-7-12



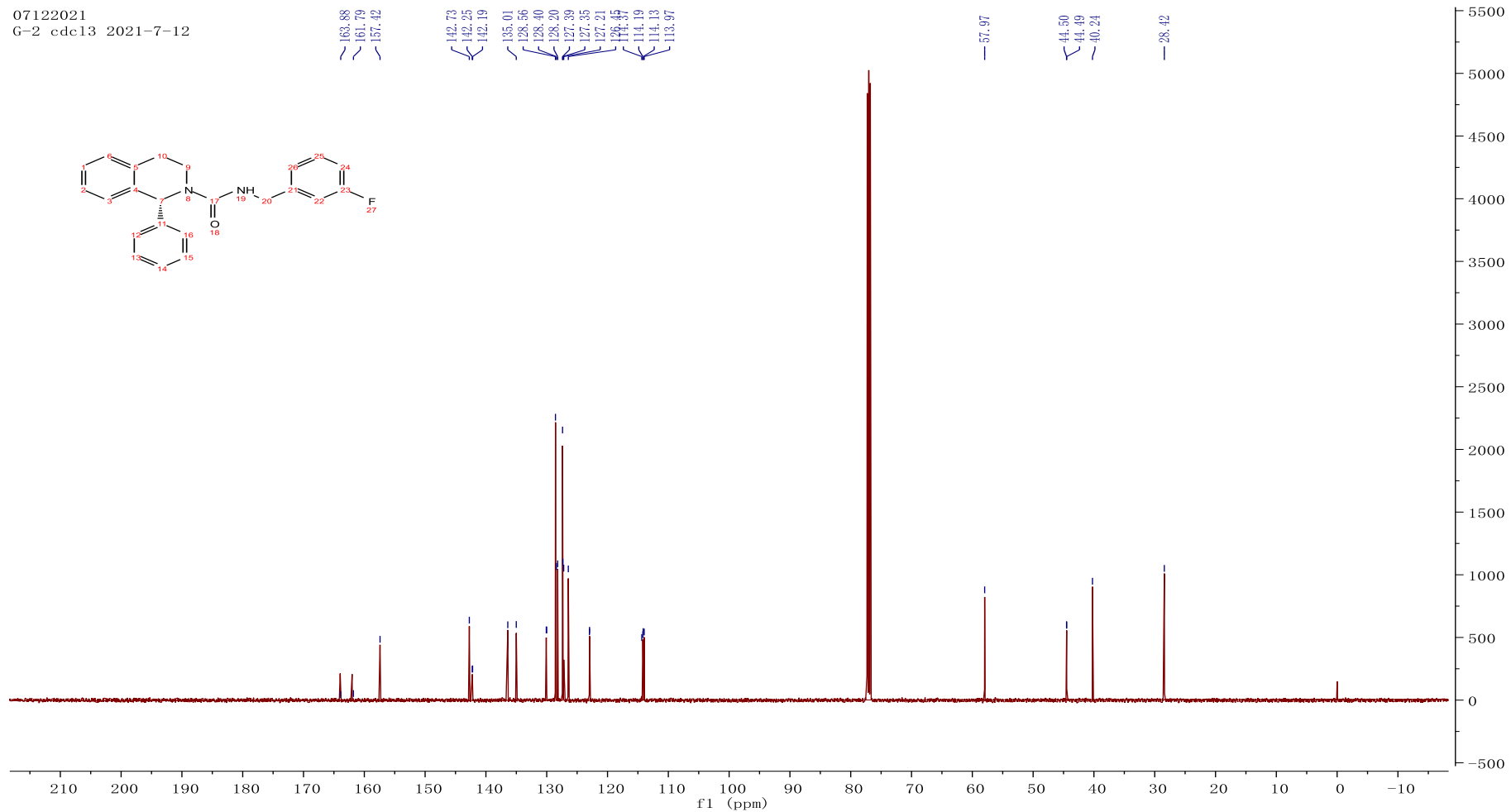
<sup>13</sup>C-NMR Spectral of **2b**

07122021  
G-2 cdc13 2021-7-12



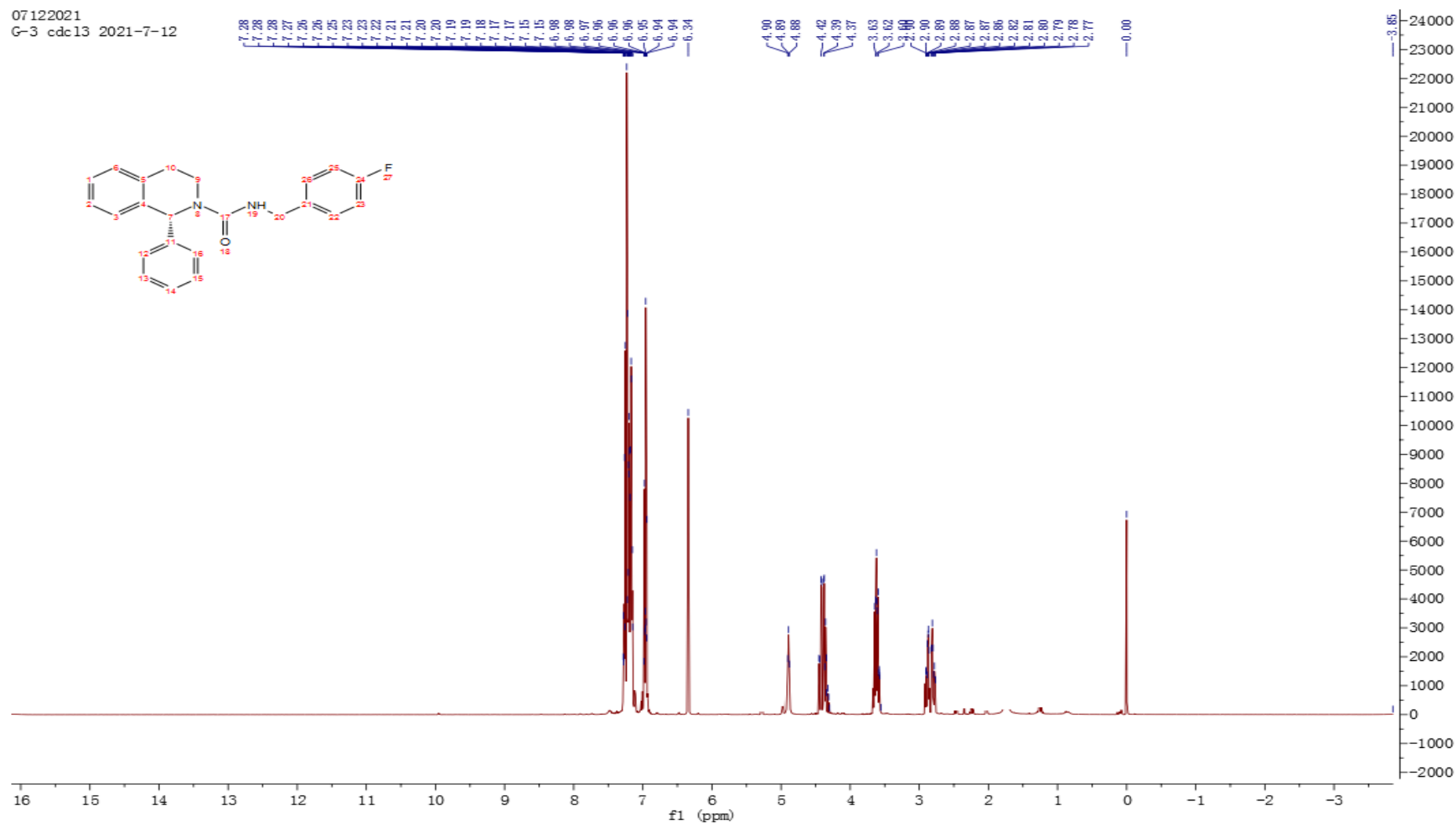
$^1\text{H}$ -NMR Spectral of **2c**

07122021  
G-2 cdc13 2021-7-12



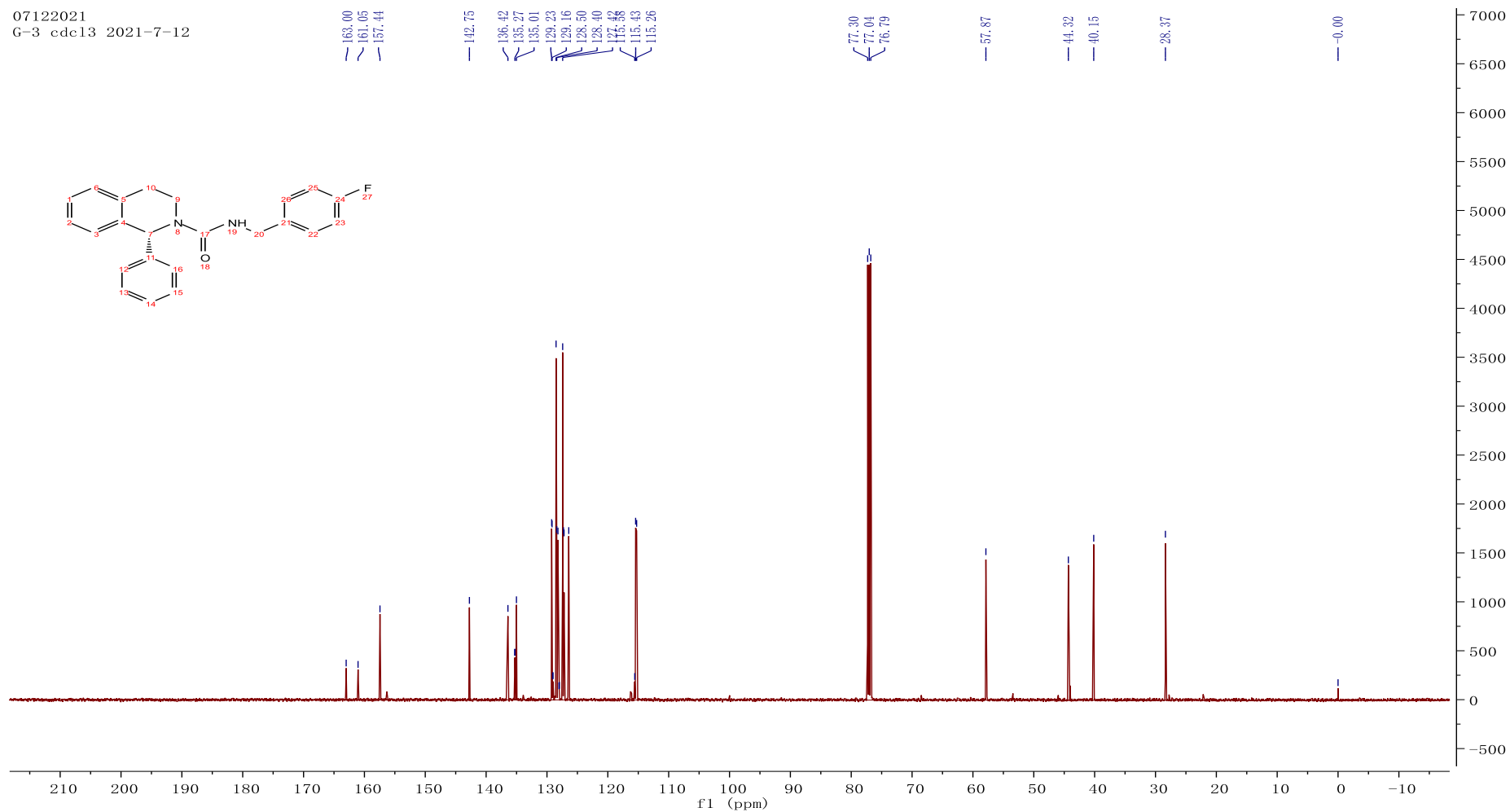
<sup>13</sup>C-NMR Spectral of **2c**

07122021  
G-3 cdc13 2021-7-12



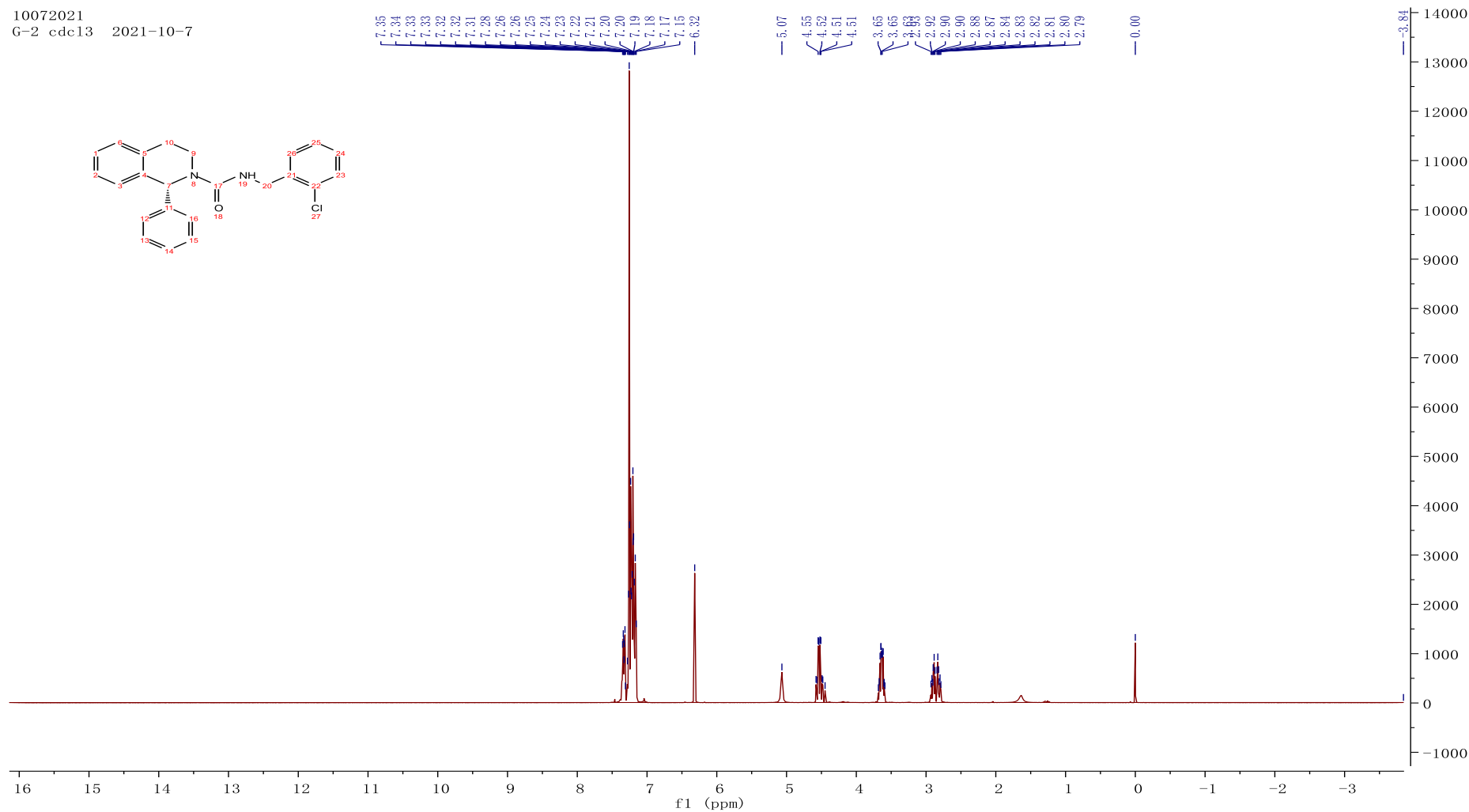
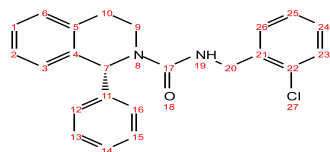
<sup>1</sup>H-NMR Spectral of **2d**

07122021  
G-3 cdcl3 2021-7-12

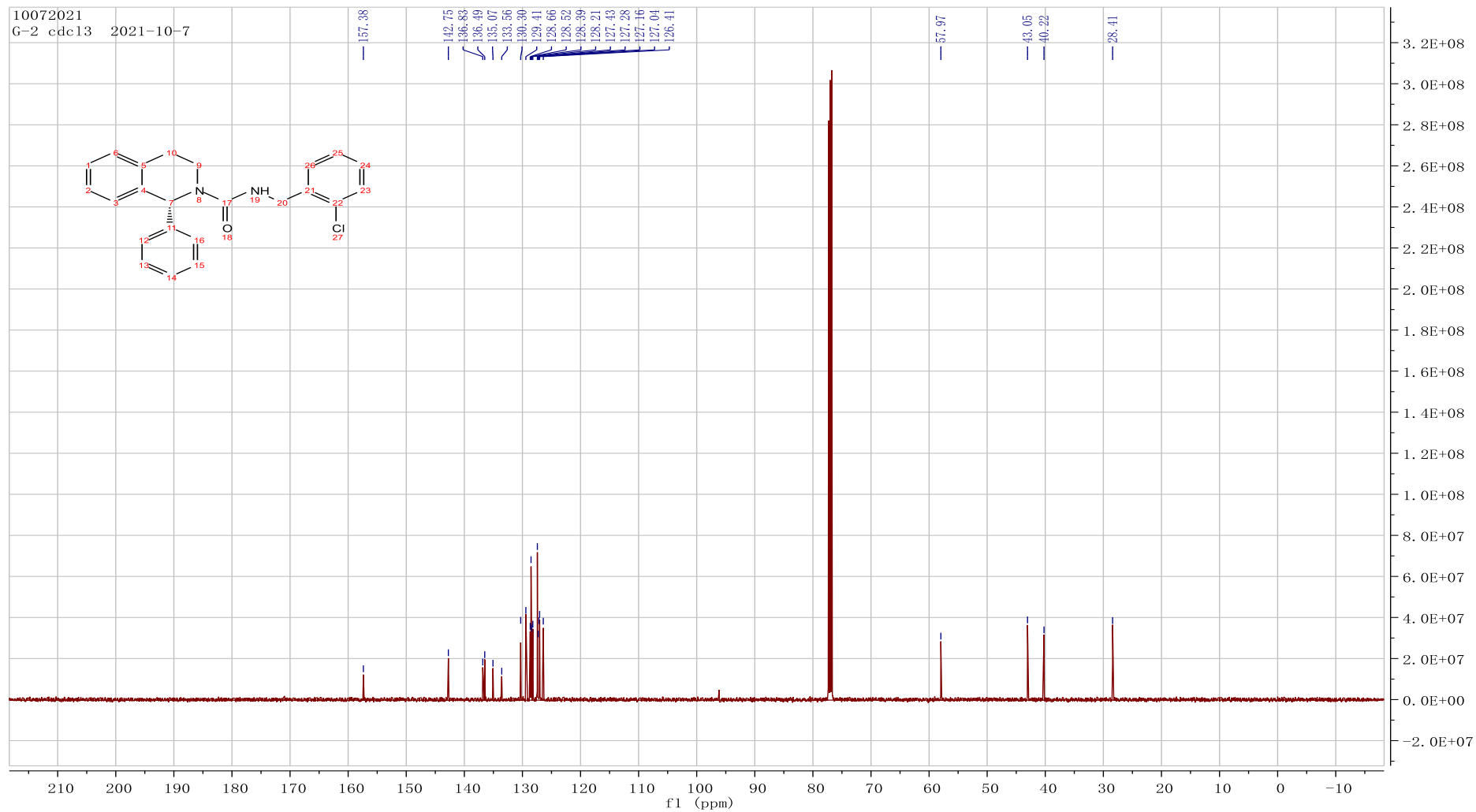




10072021  
G-2 cdc13 2021-10-7

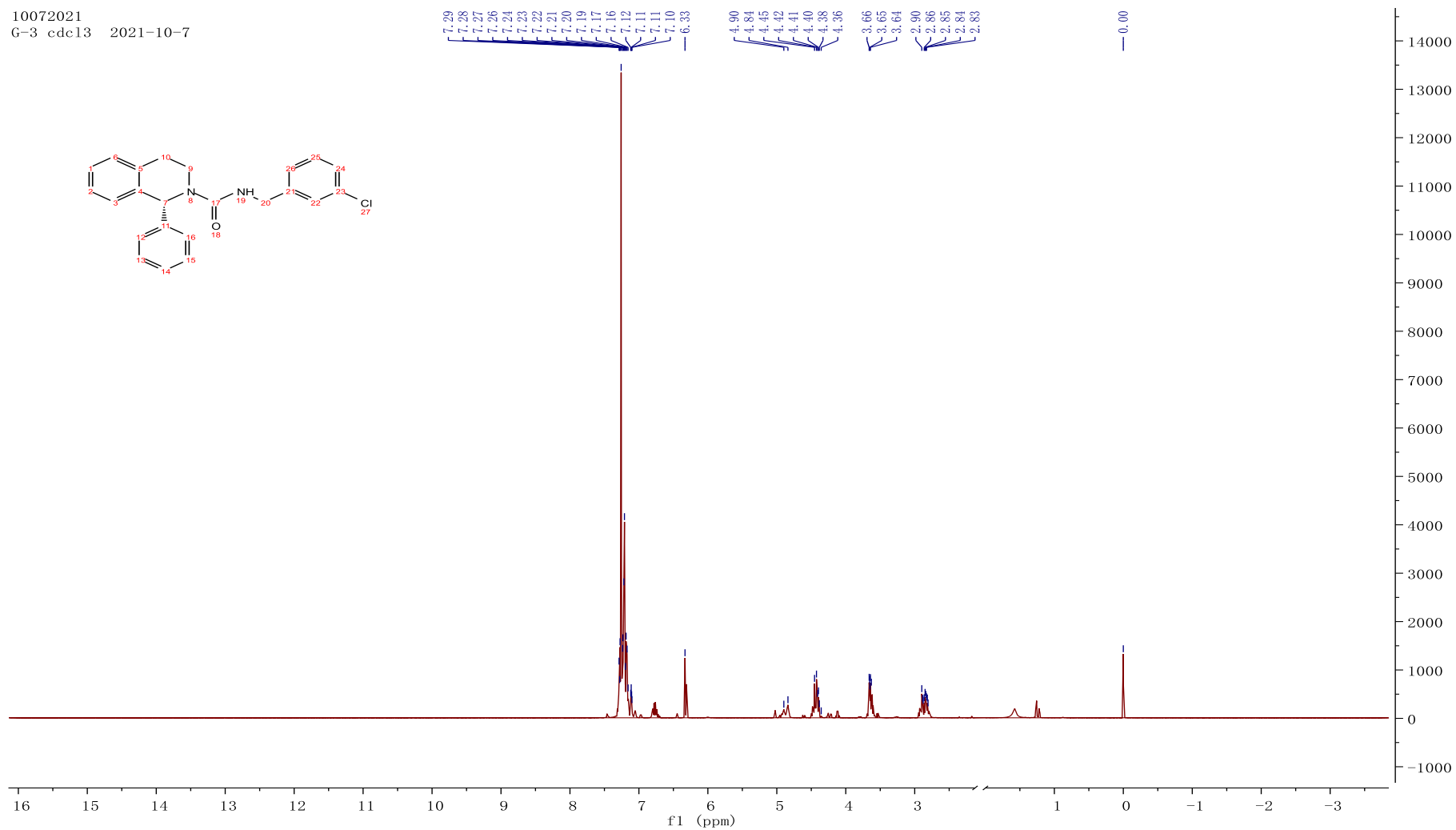


<sup>1</sup>H-NMR Spectral of **2e**



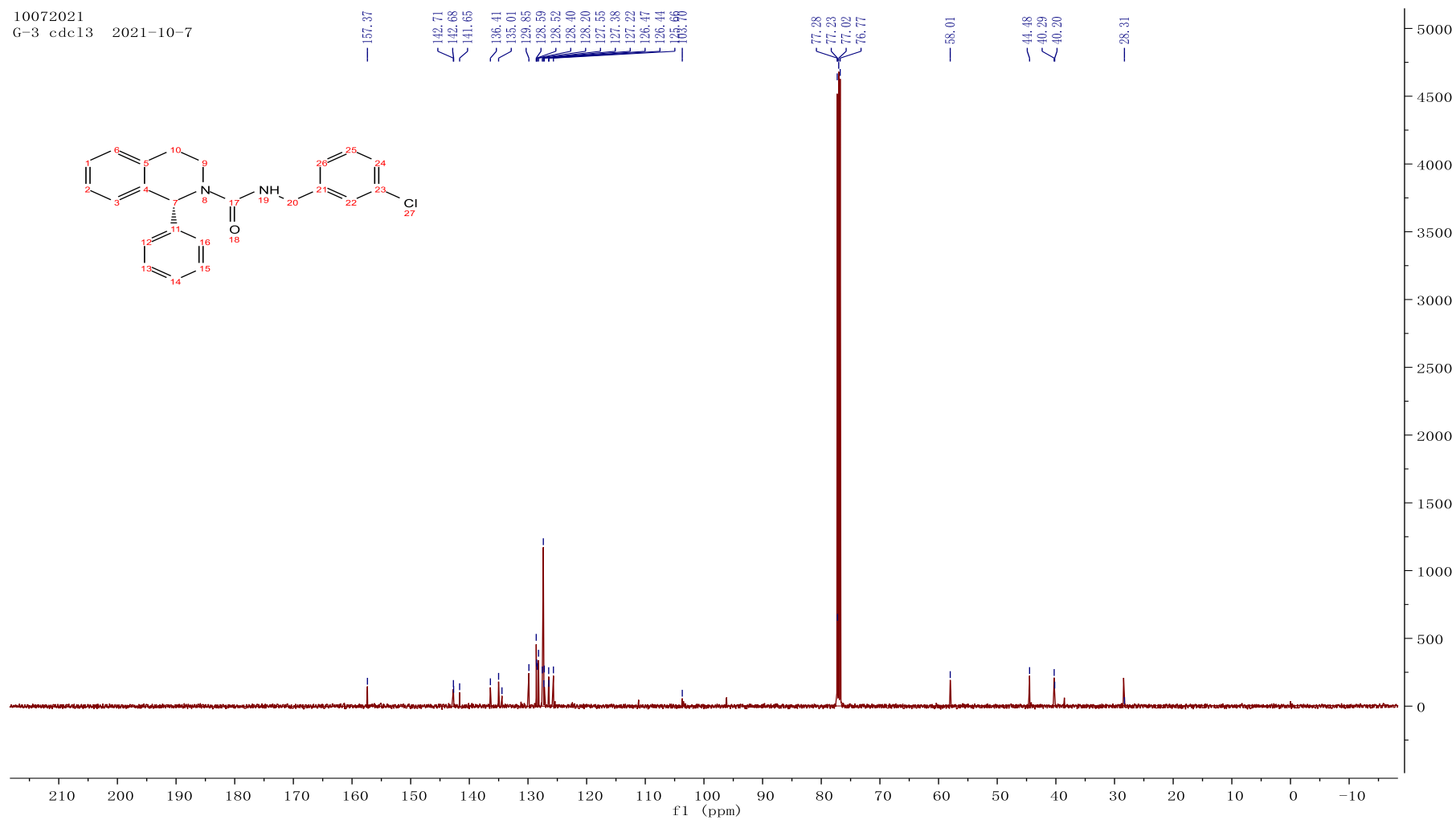
<sup>13</sup>C-NMR Spectral of **2e**

10072021  
G-3 cdc13 2021-10-7

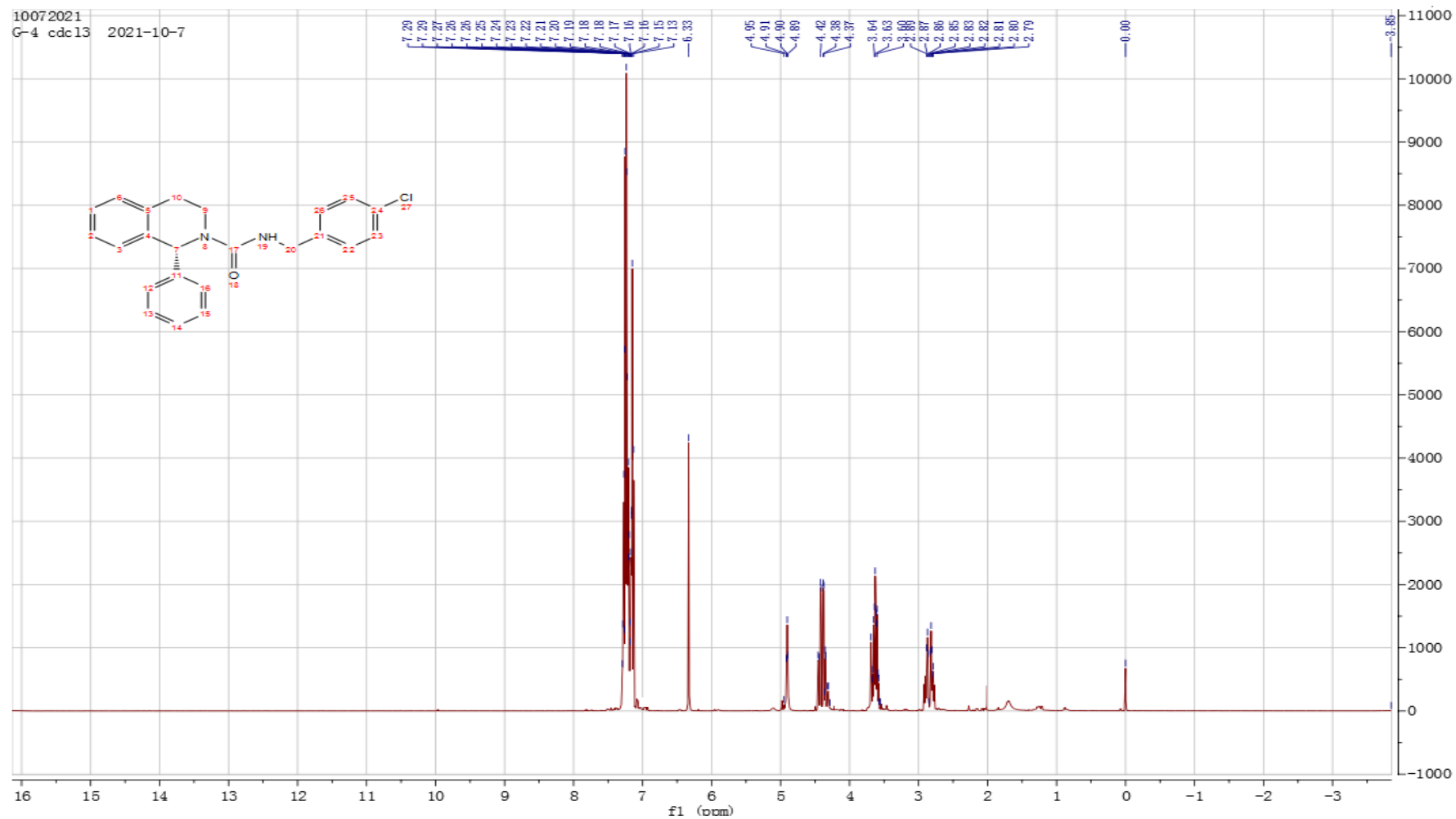


<sup>1</sup>H-NMR Spectral of **2f**

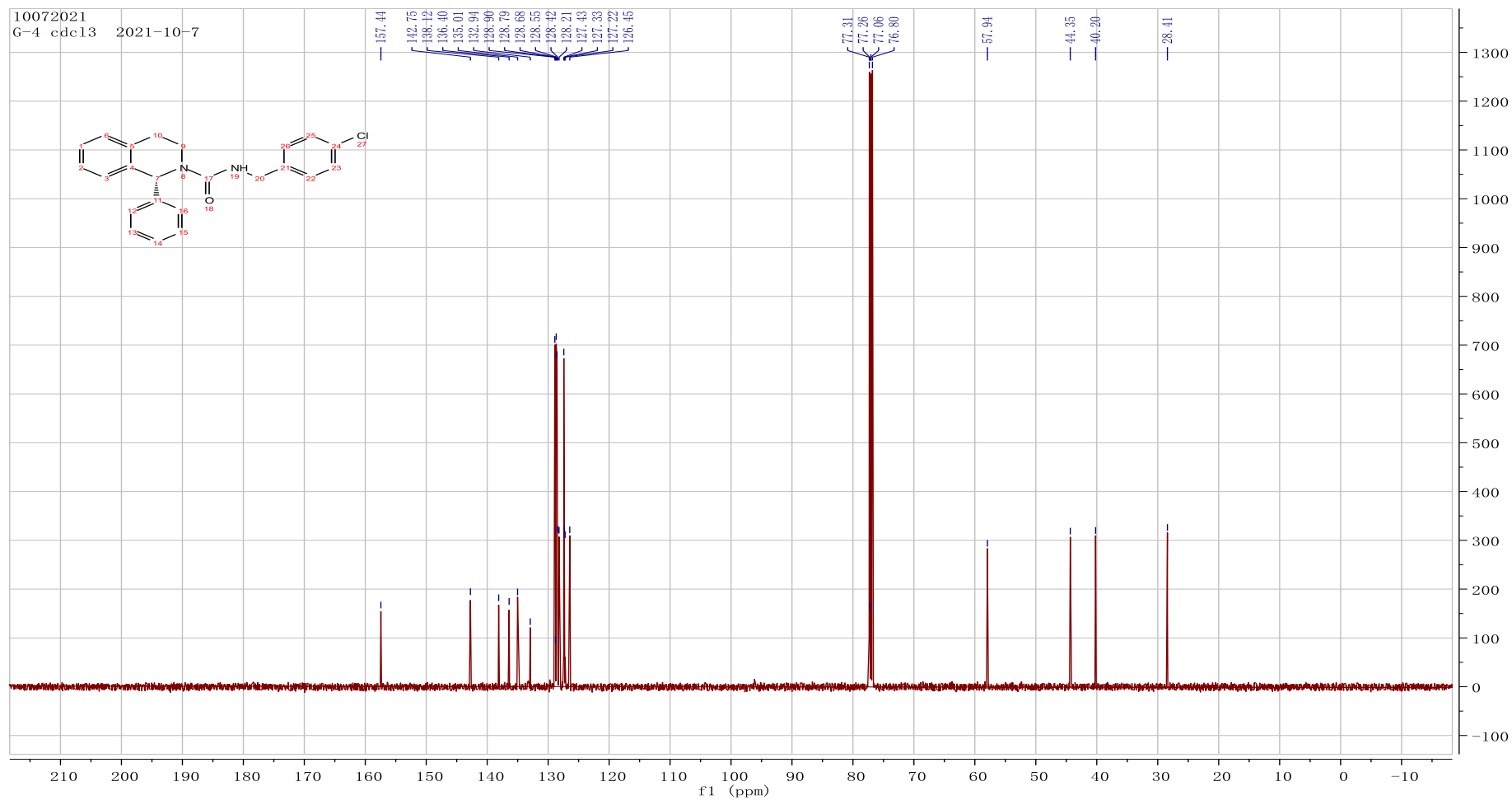
10072021  
G-3 cdc13 2021-10-7



<sup>13</sup>C-NMR Spectral of **2f**

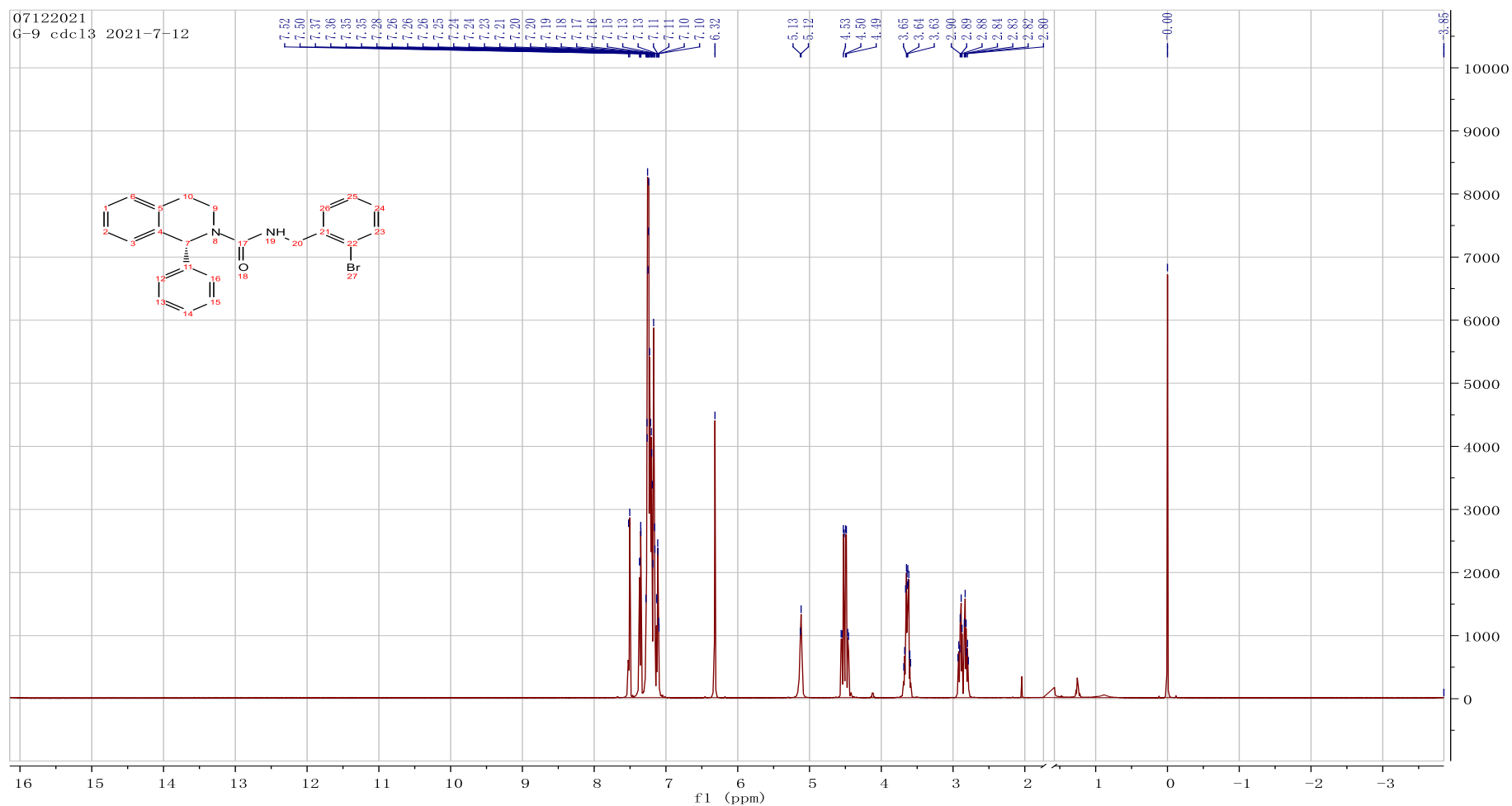


<sup>1</sup>H-NMR Spectral of 2g

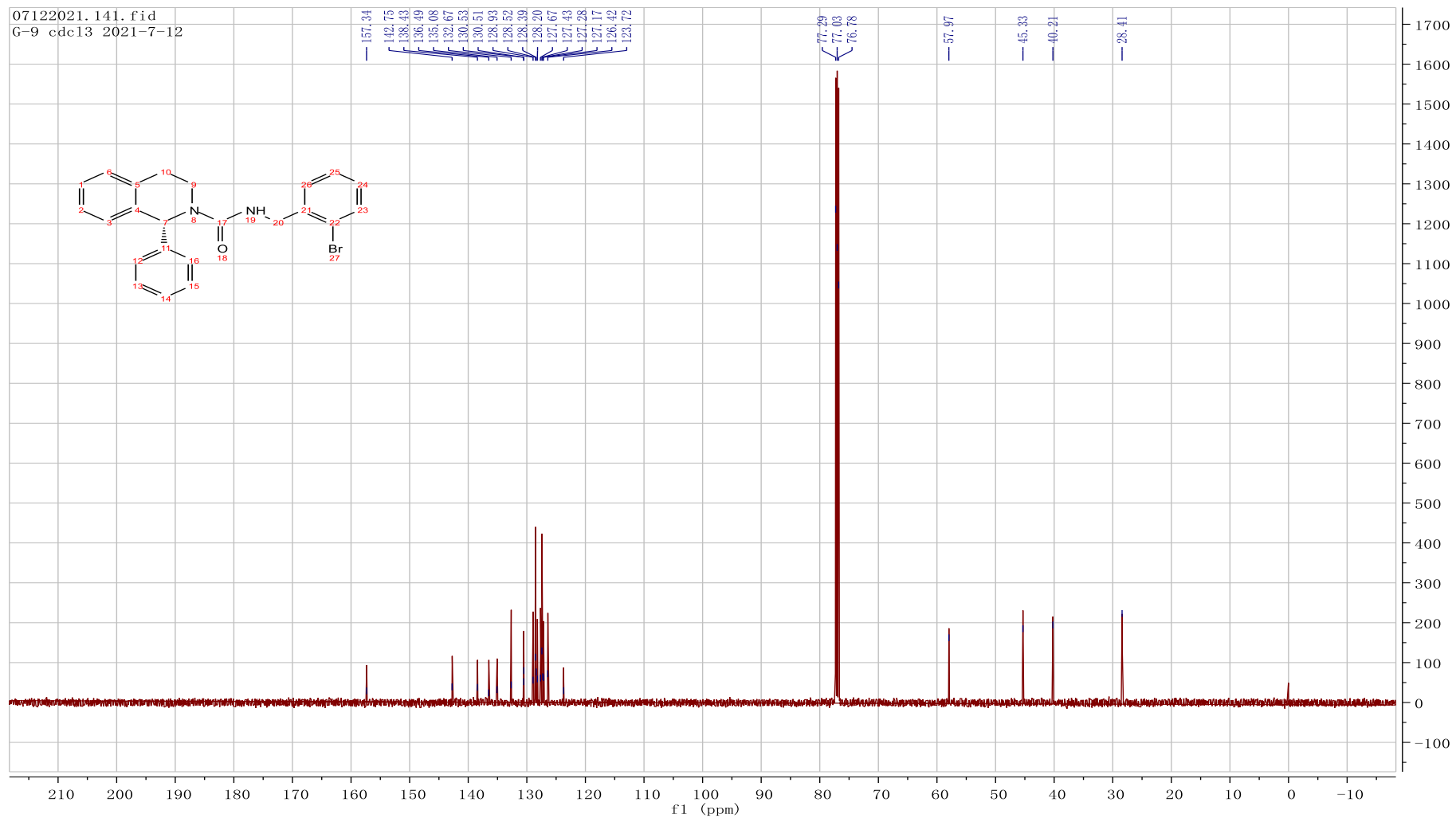


<sup>13</sup>C-NMR Spectral of **2g**

07122021  
G-9 cdcl3 2021-7-12



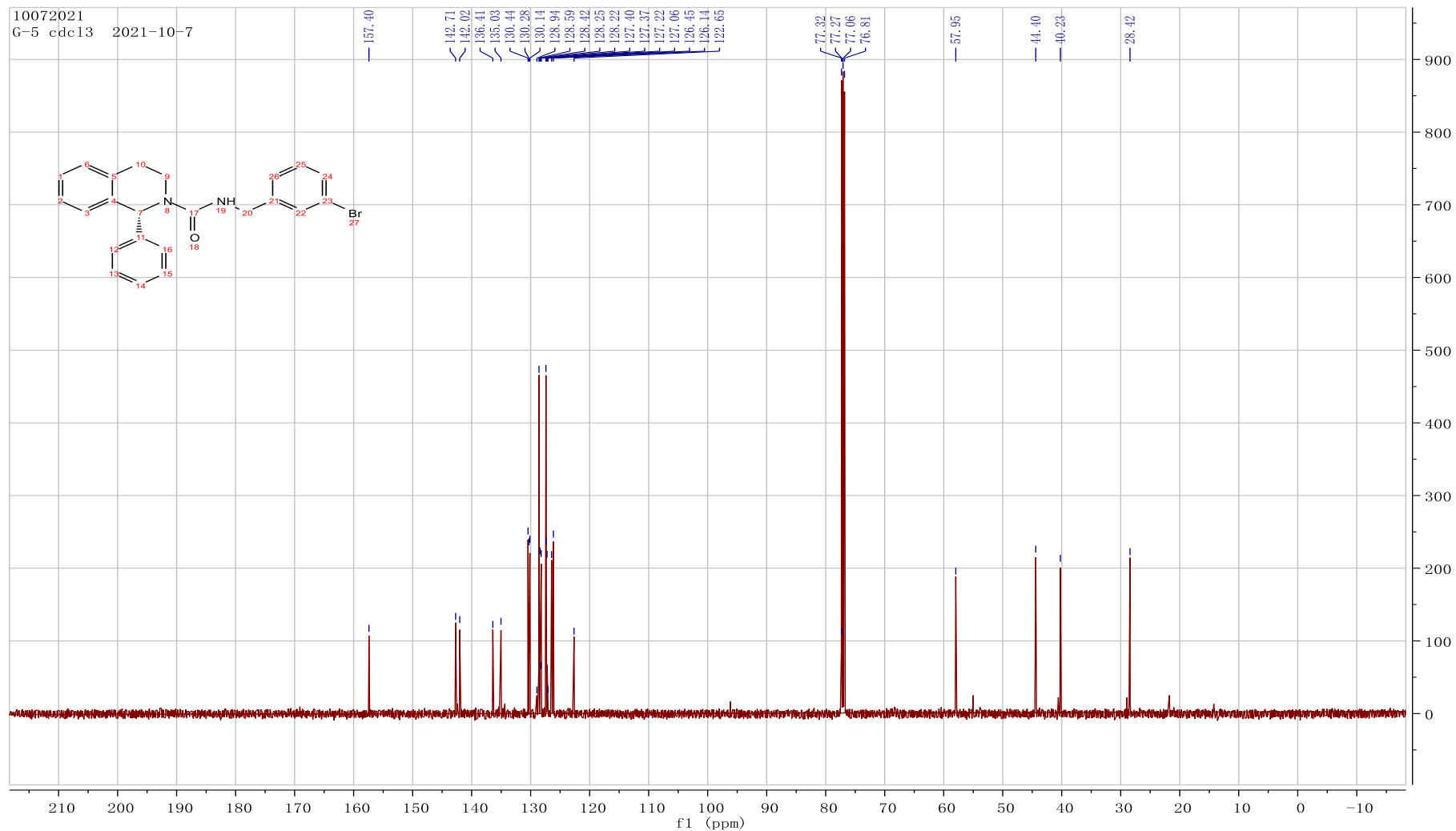
$^1\text{H-NMR}$  Spectral of **2h**



<sup>13</sup>C-NMR Spectral of **2h**

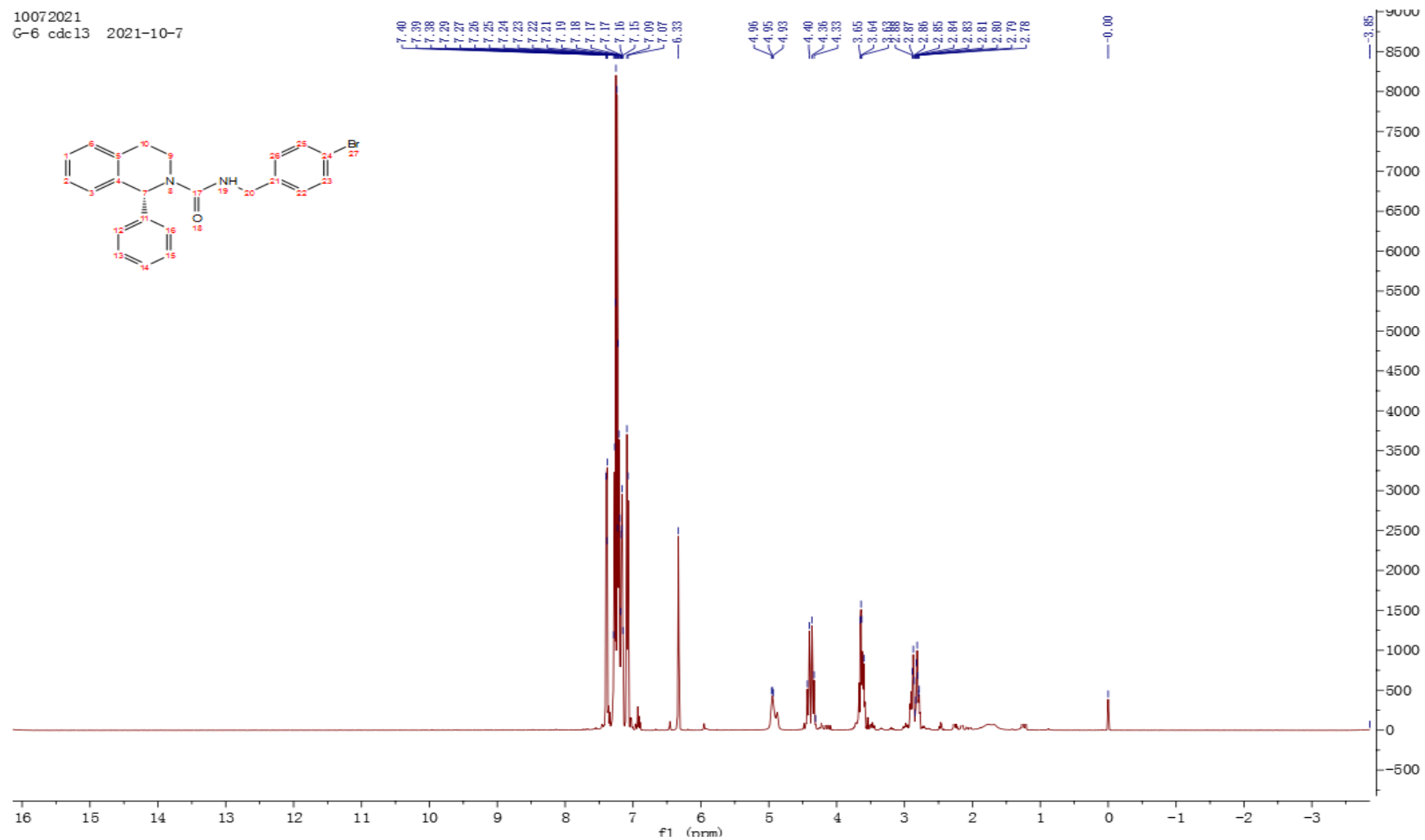




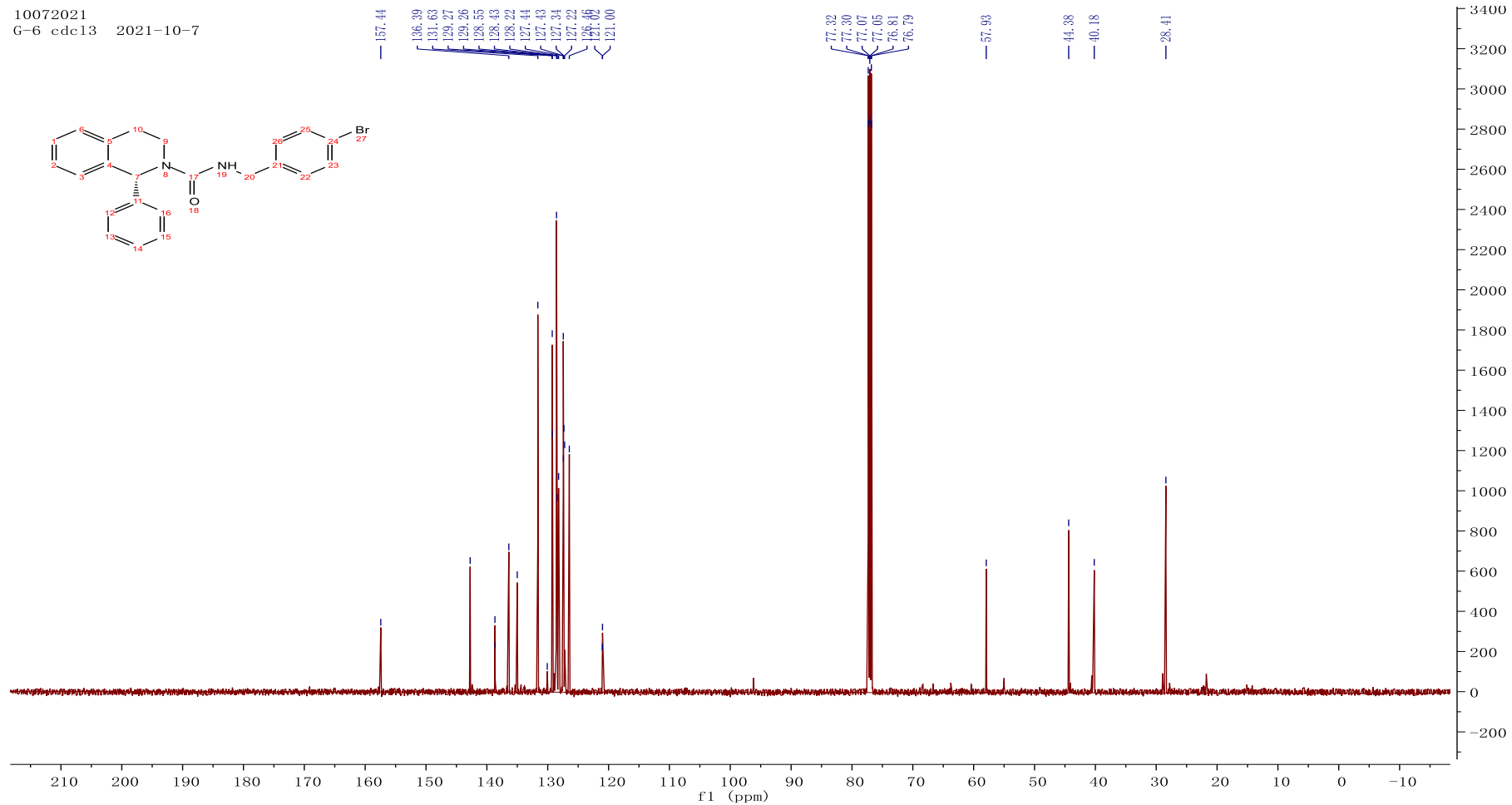


<sup>13</sup>C-NMR Spectral of **2i**

10072021  
G-6 cdc13 2021-10-7

<sup>1</sup>H-NMR Spectral of **2j**

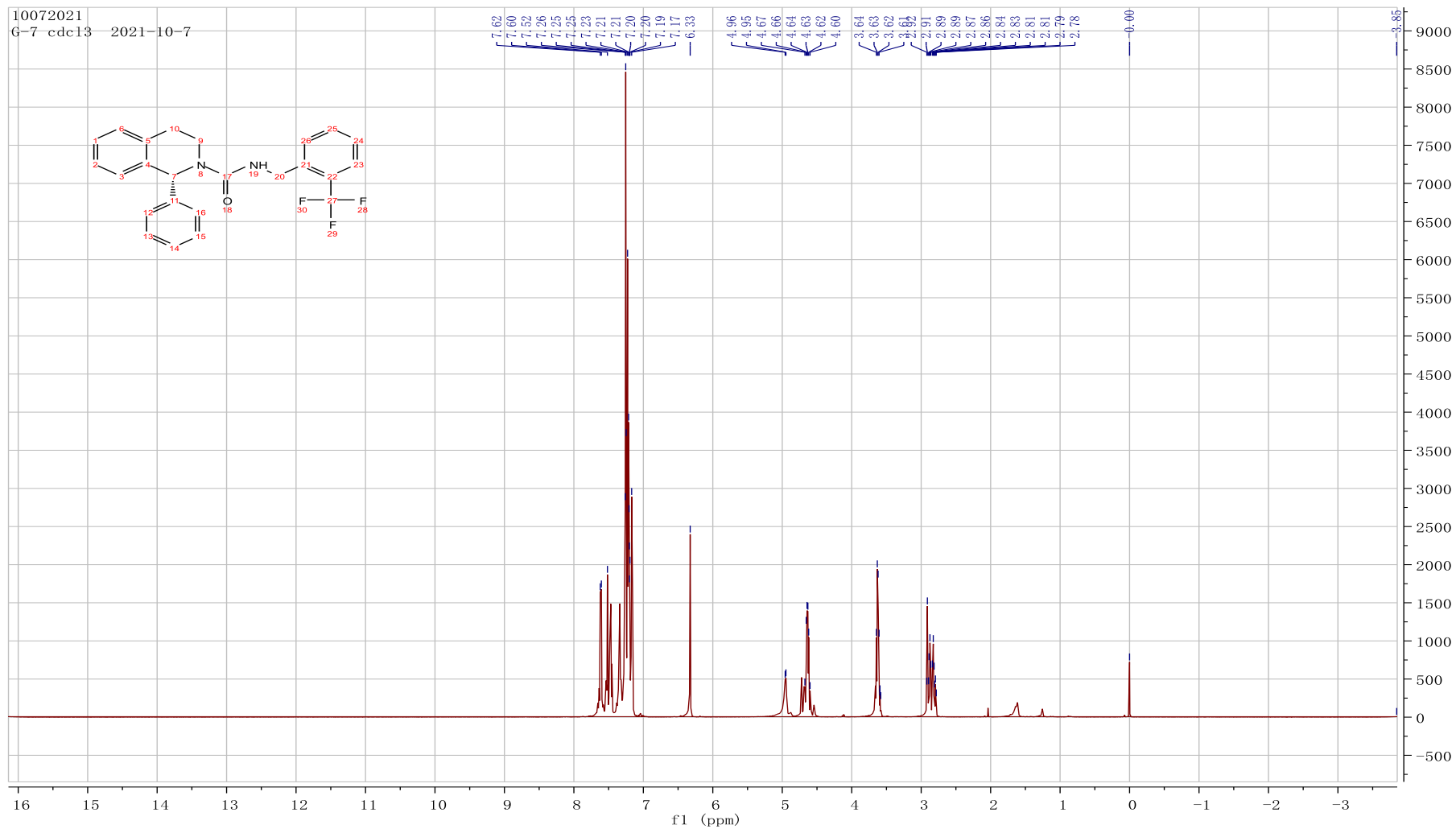
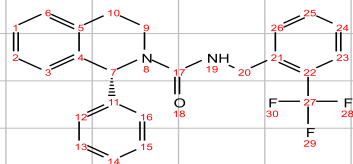
10072021  
G-6 cdc13 2021-10-7

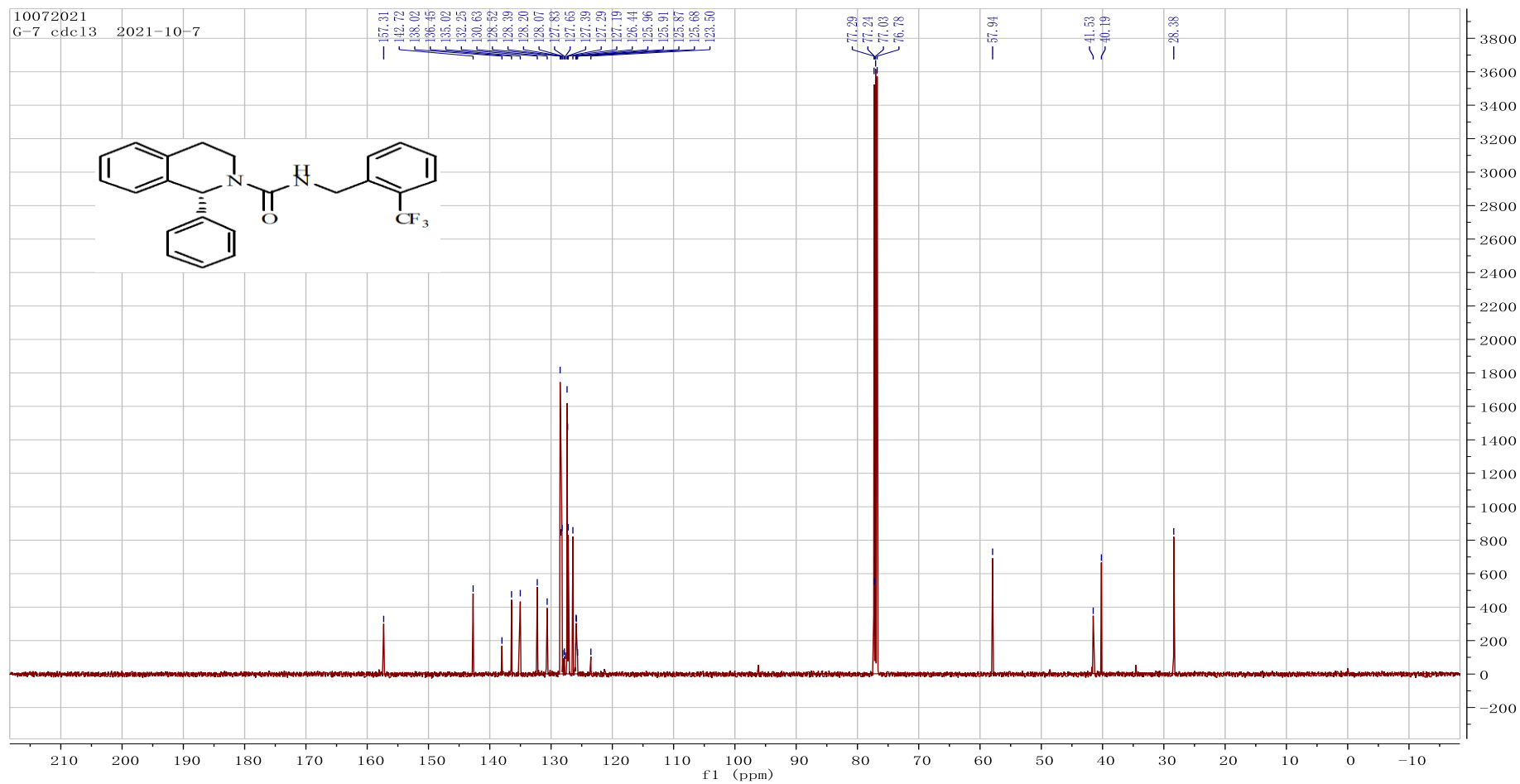


<sup>13</sup>C-NMR Spectral of **2j**

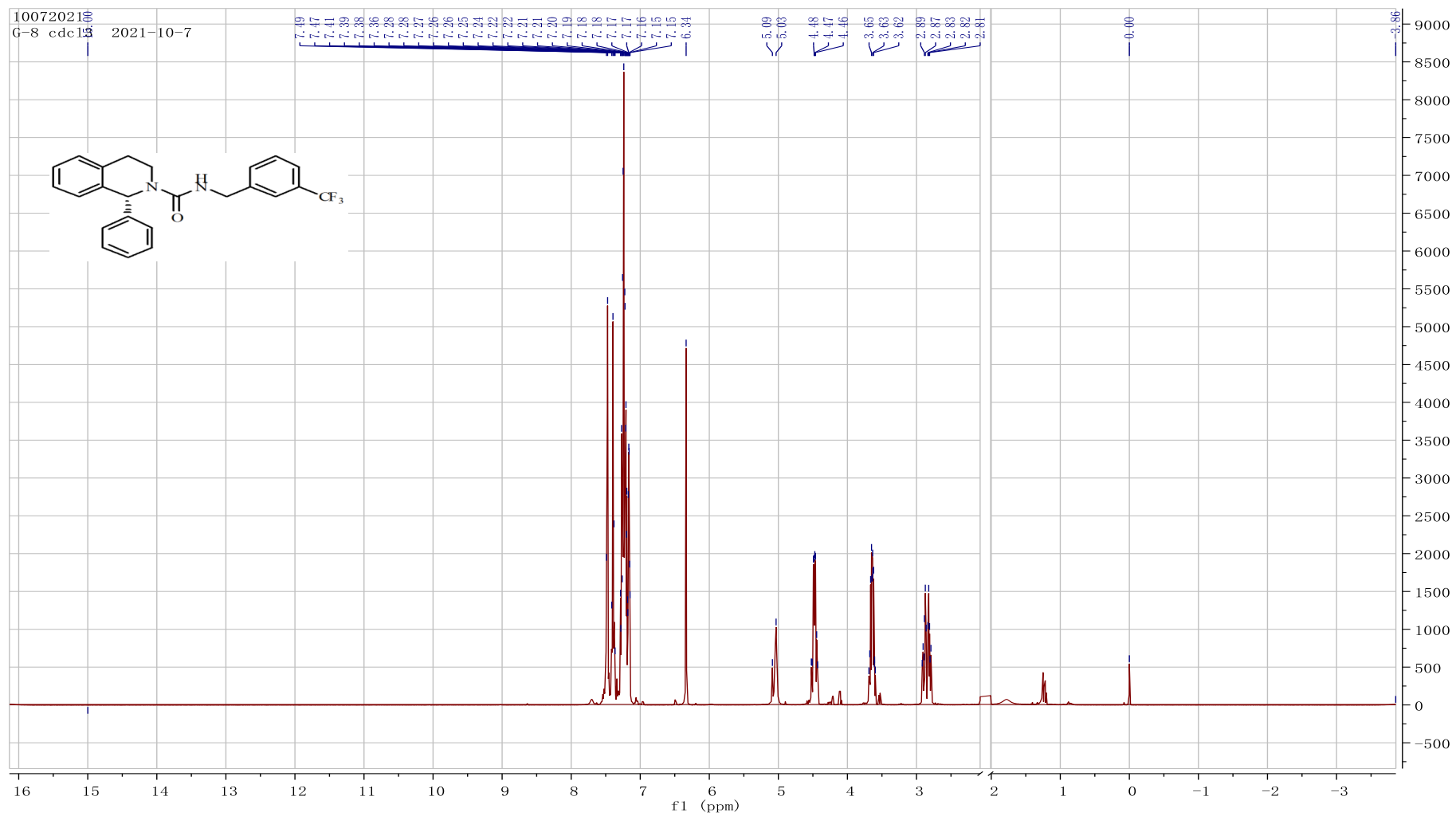
10072021

6-7 cdc13 2021-10-7

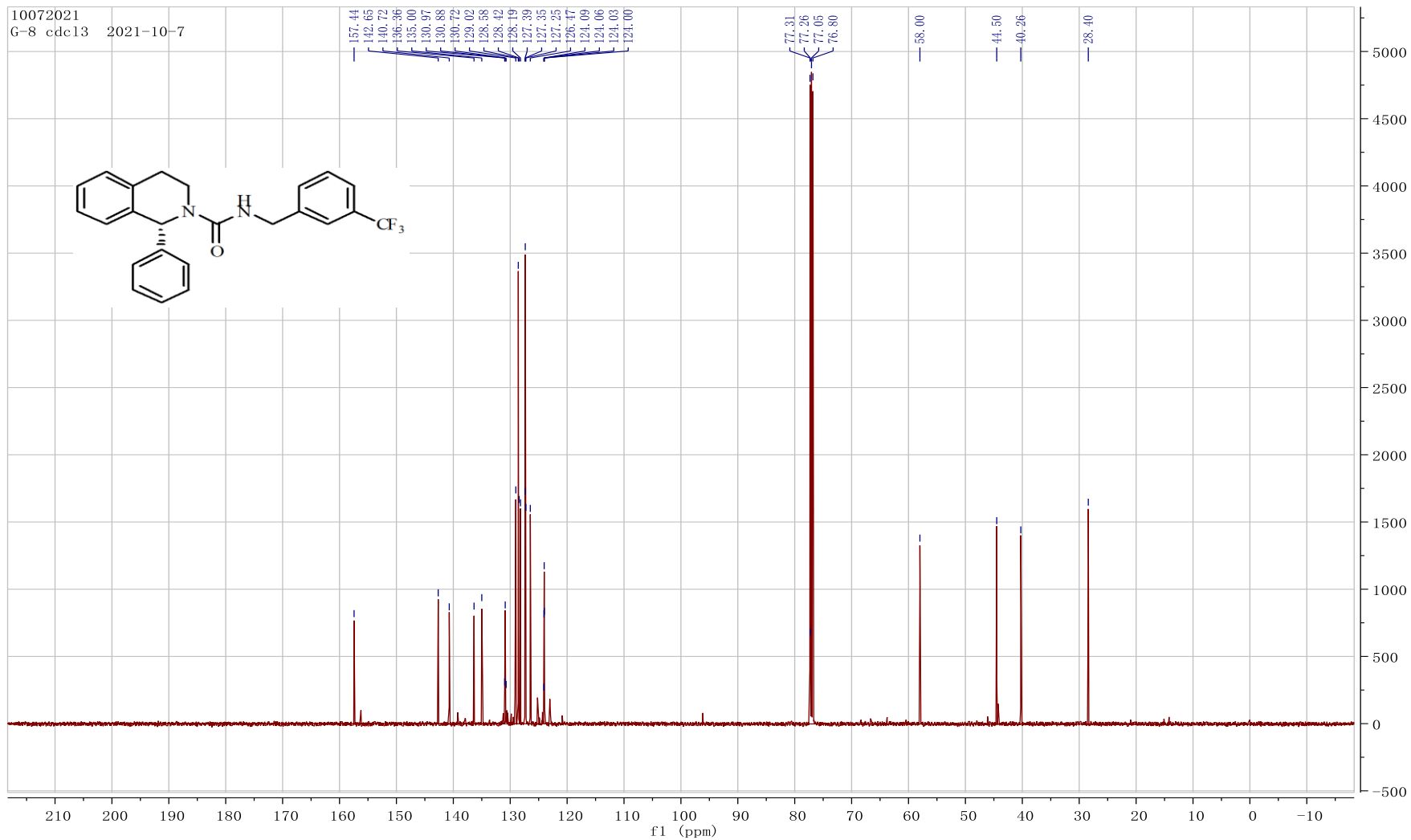
 $^1\text{H}$ -NMR Spectral of **2k**



<sup>13</sup>C-NMR Spectral of **2k**

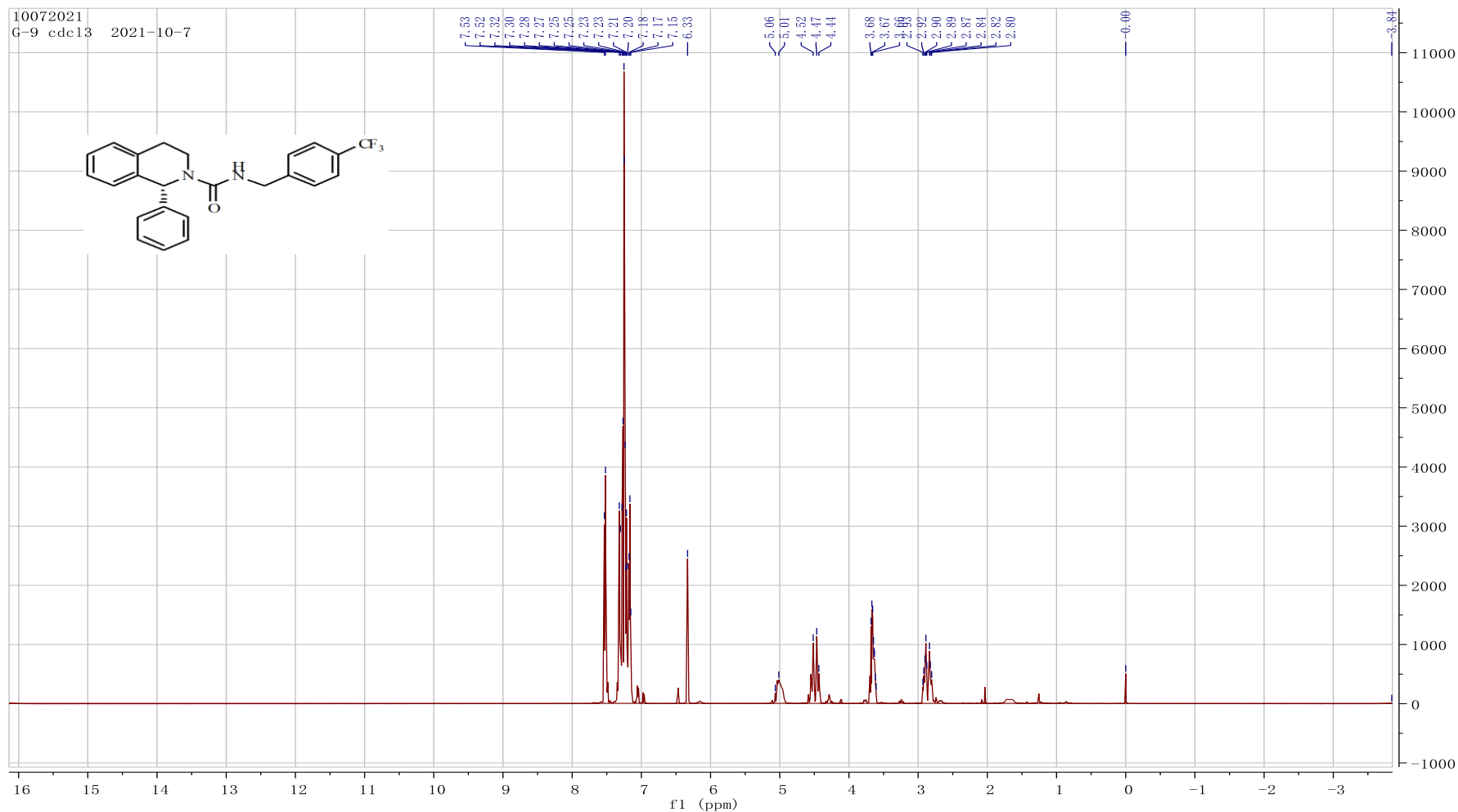


<sup>1</sup>H-NMR Spectral of **21**

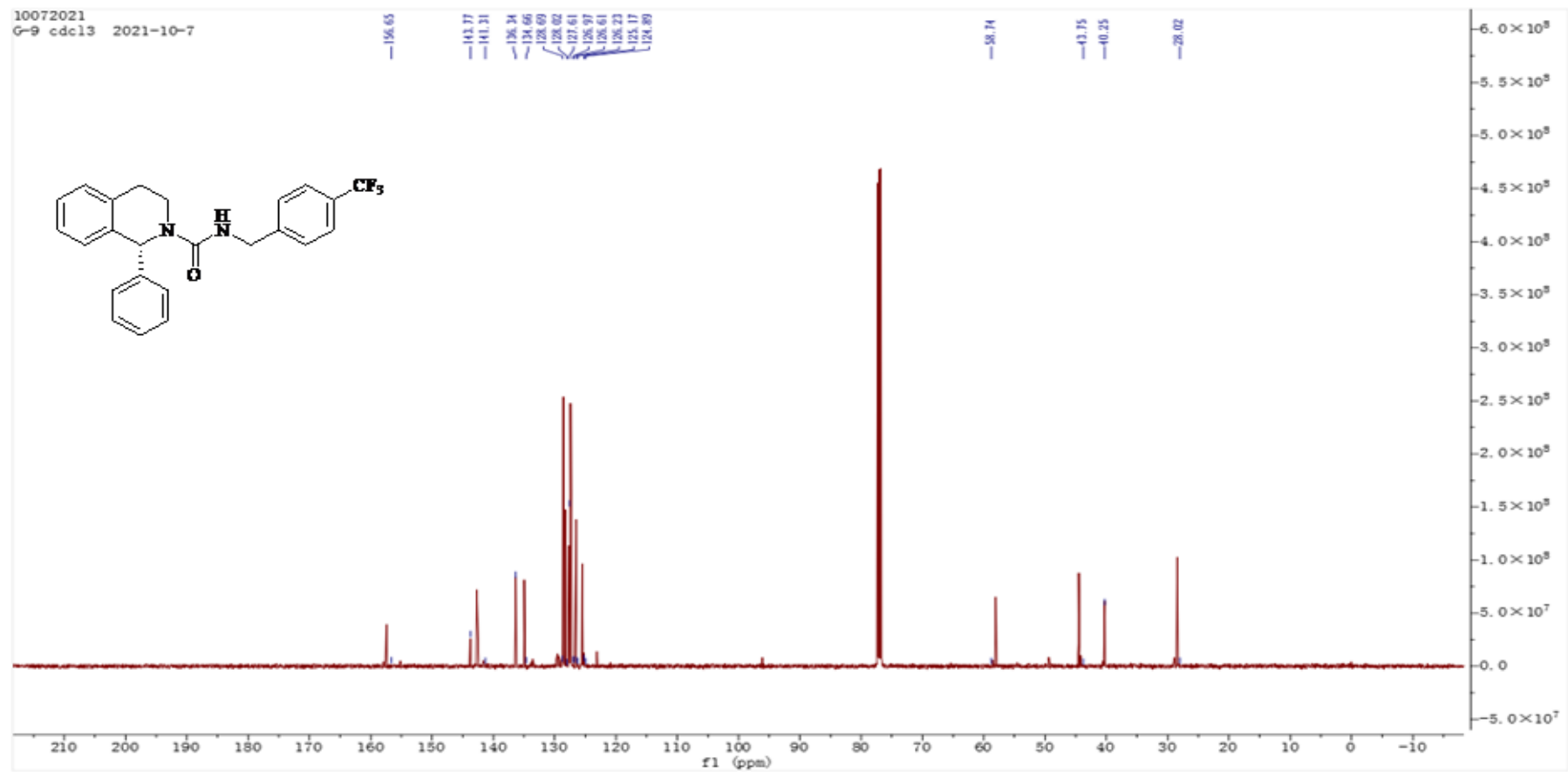


<sup>13</sup>C-NMR Spectral of **21**



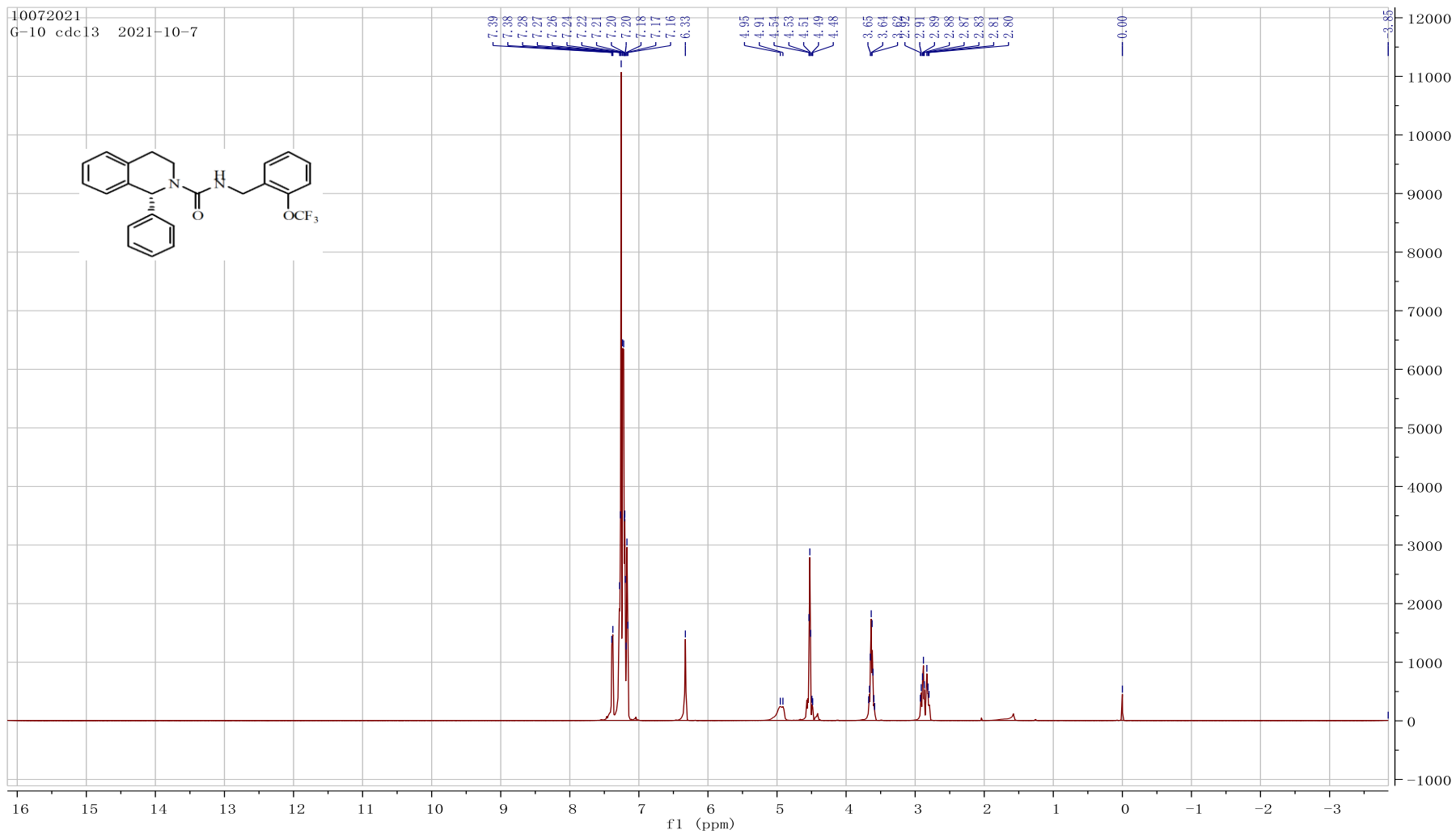
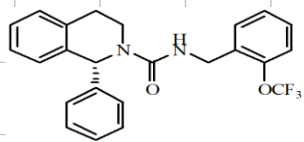


$^1\text{H}$ -NMR Spectral of **2m**

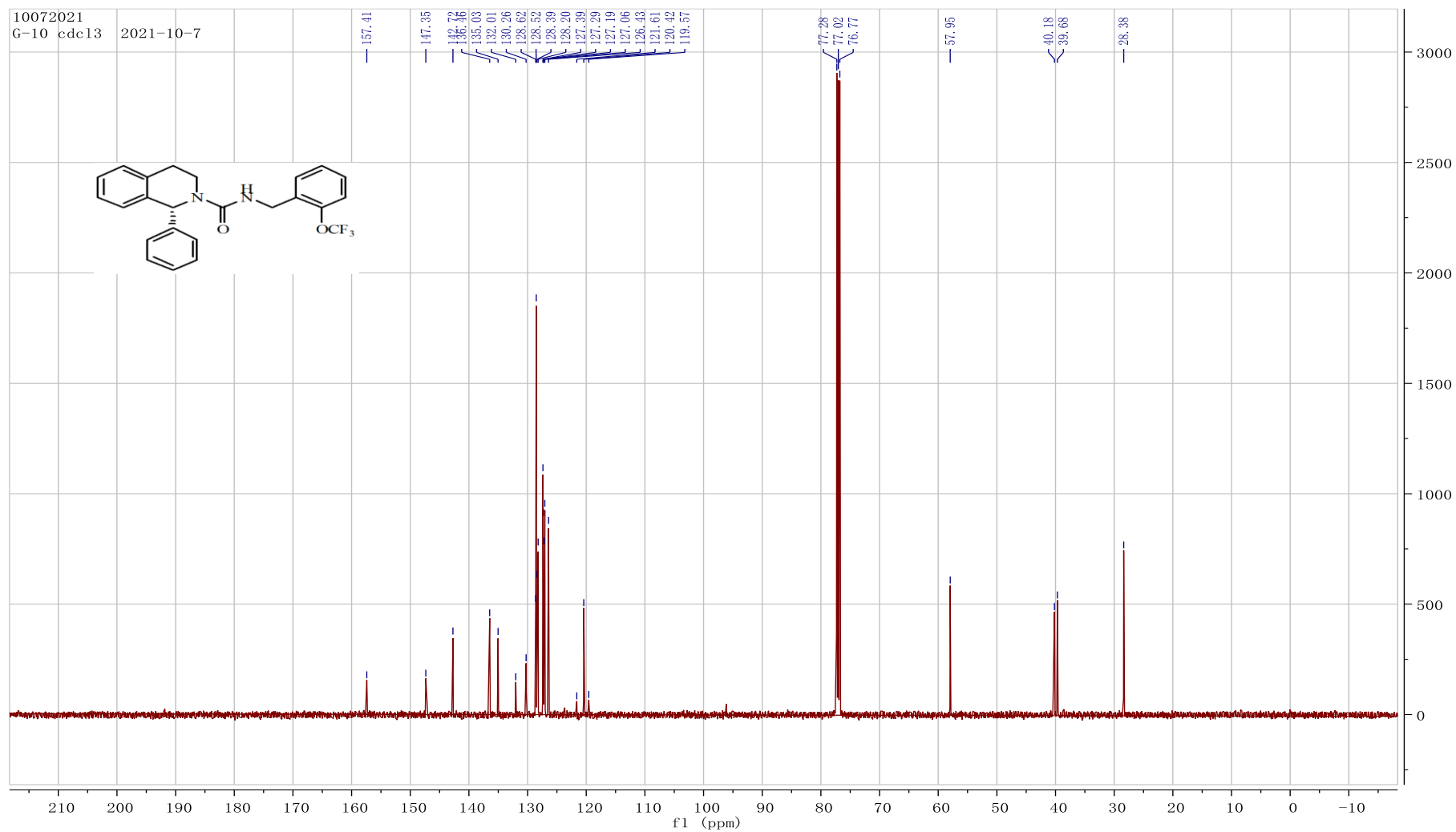


<sup>13</sup>C-NMR Spectral of **2m**

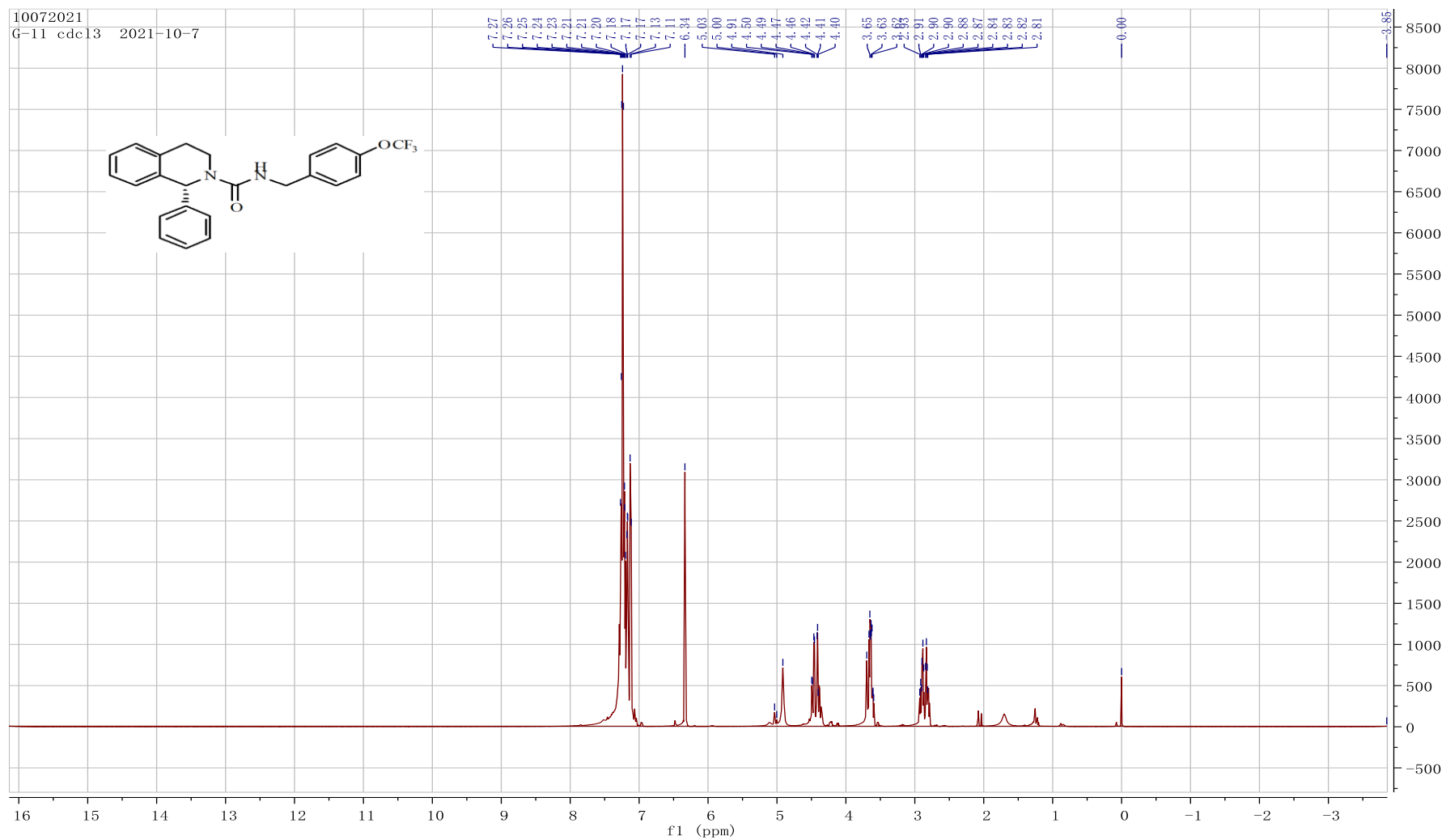
G-10	cdc13	2021-10-7
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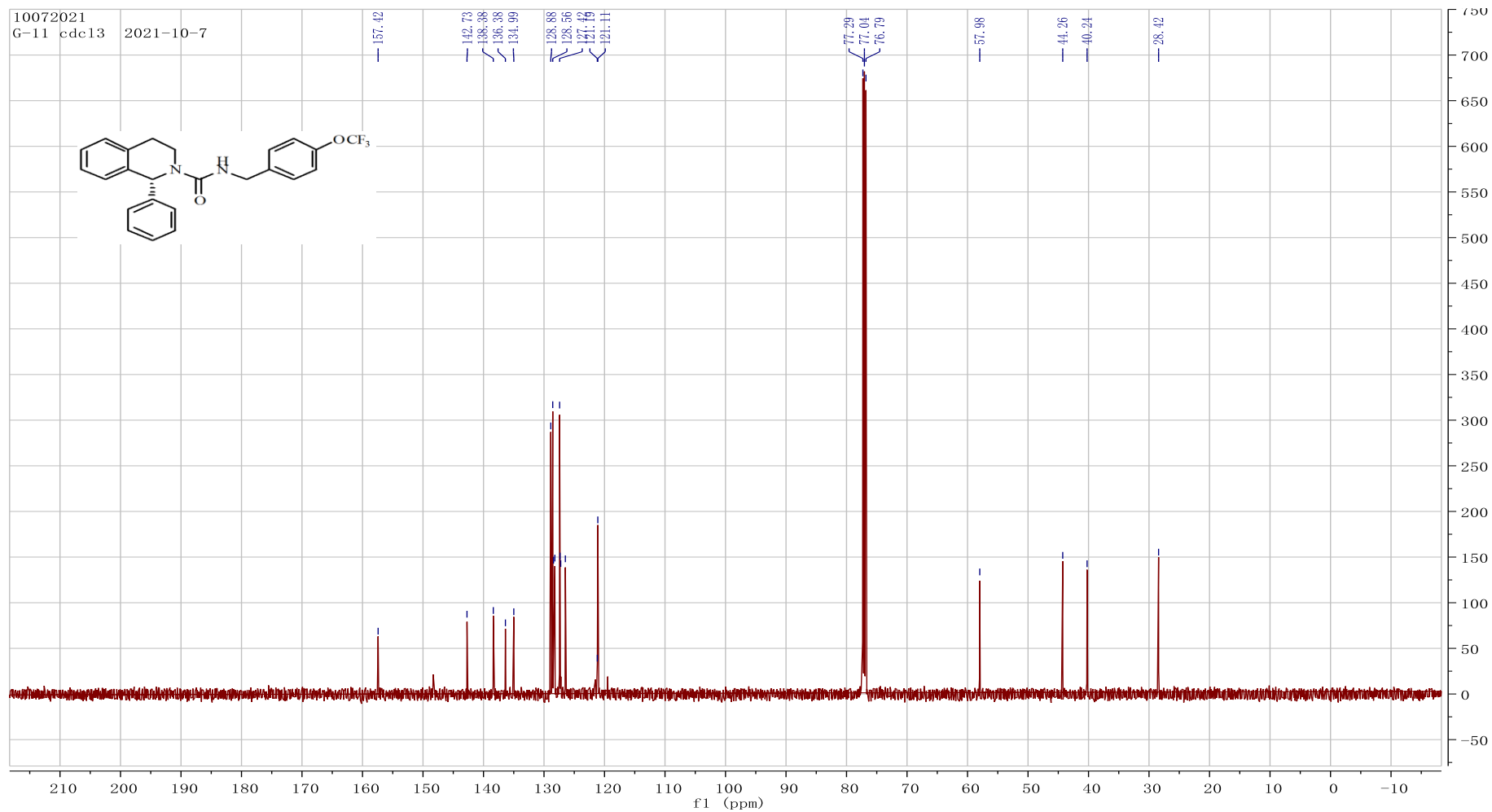
### <sup>1</sup>H-NMR Spectral of **2n**



<sup>13</sup>C-NMR Spectral of **2n**

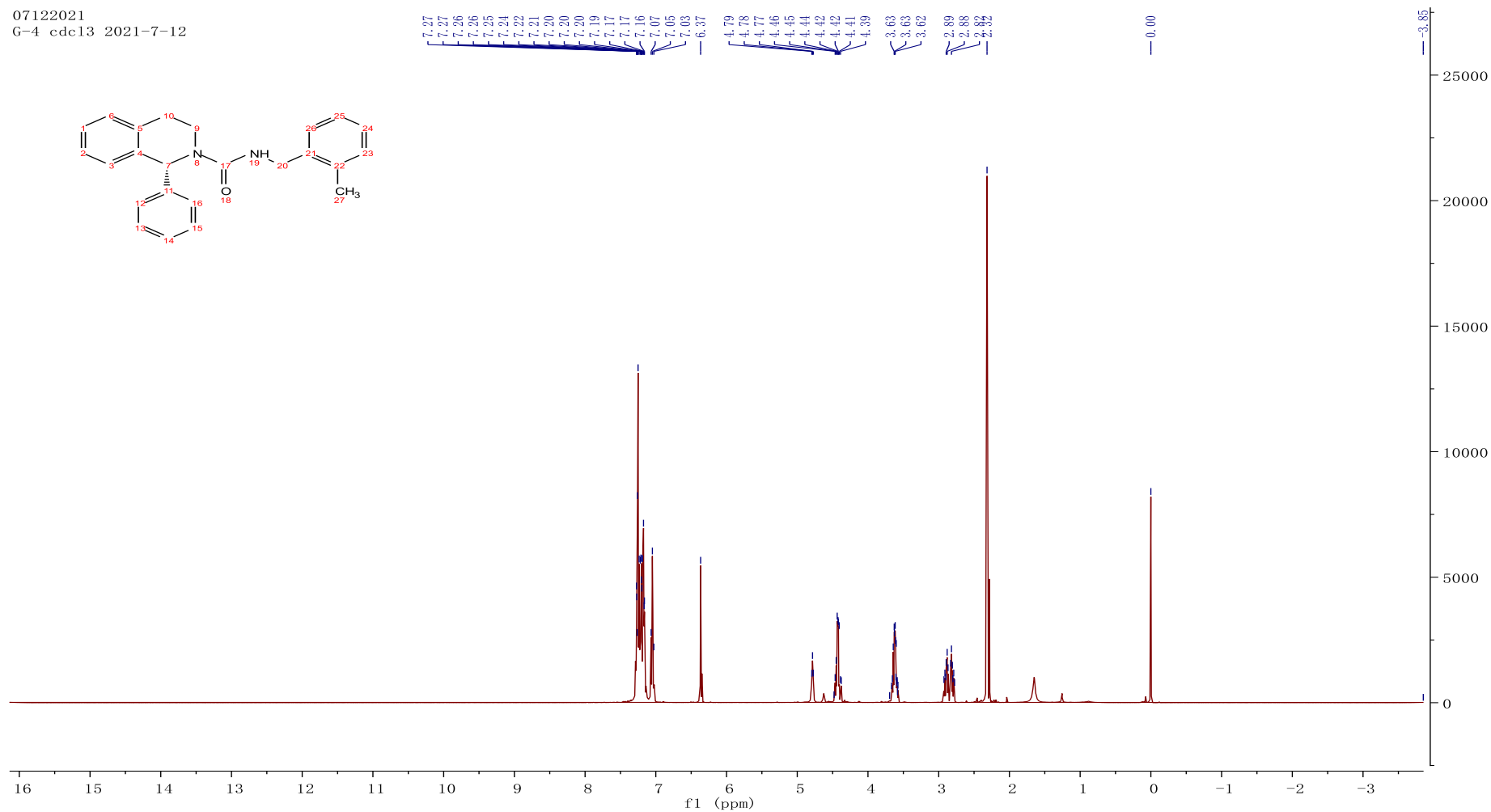
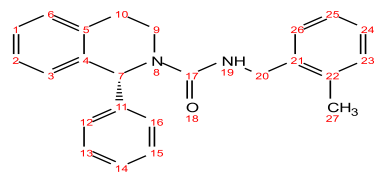


$^1\text{H}$ -NMR Spectral of **2o**



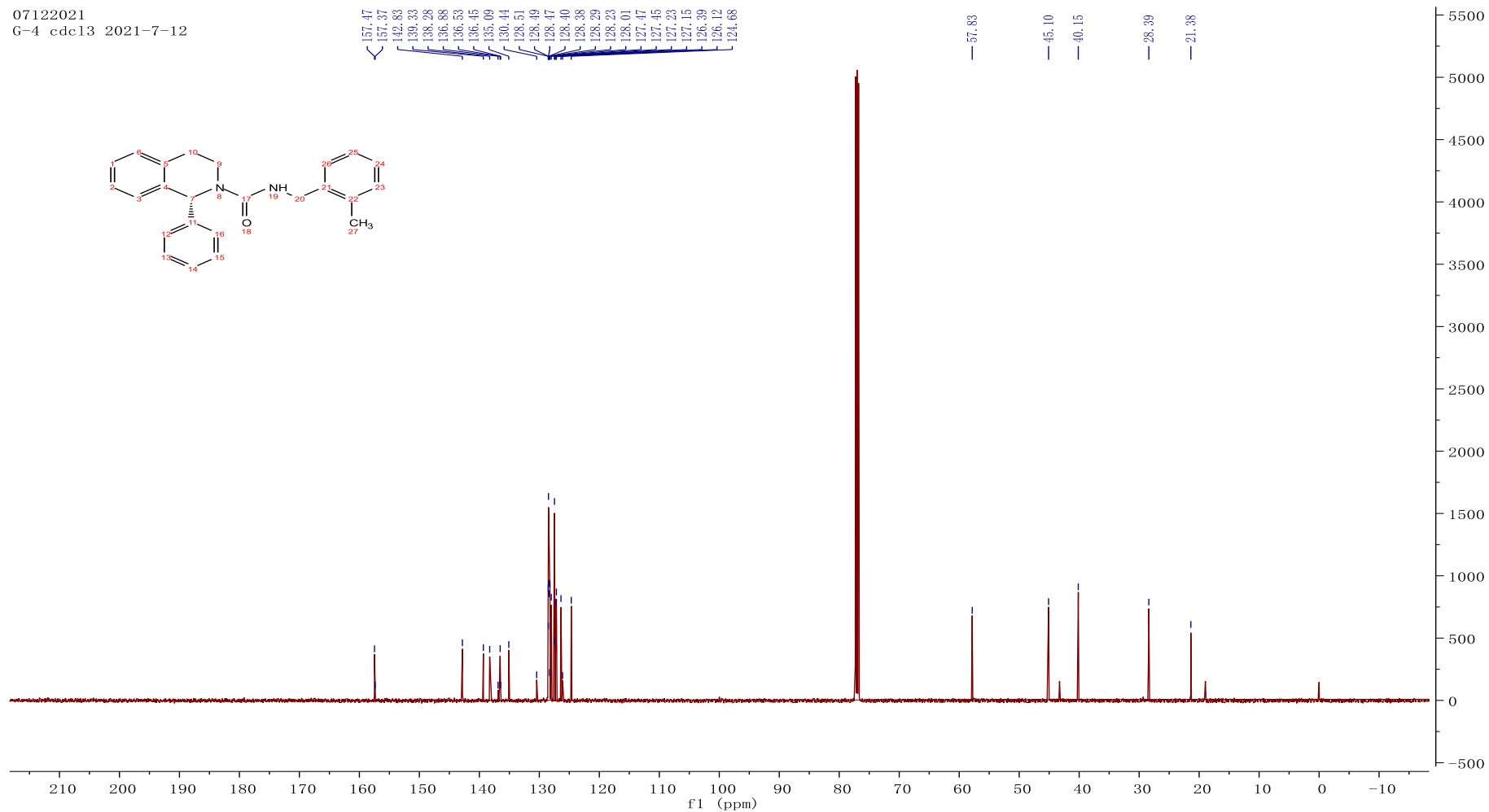
<sup>13</sup>C-NMR Spectral of **2o**

07122021  
G-4 cdc13 2021-7-12



$^1\text{H}$ -NMR Spectral of **2p**

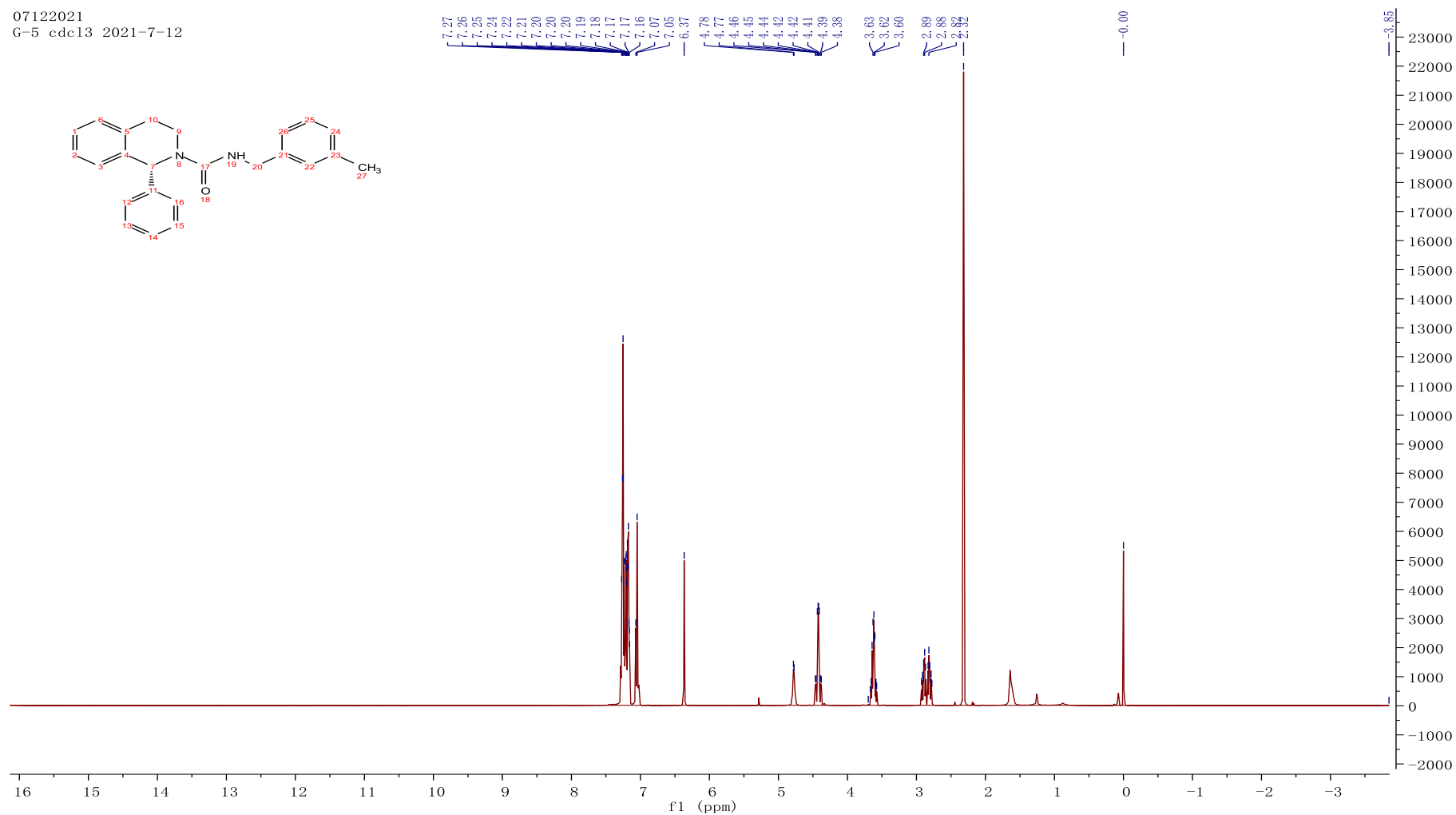
07122021  
G-4 cdc13 2021-7-12



<sup>13</sup>C-NMR Spectral of **2p**

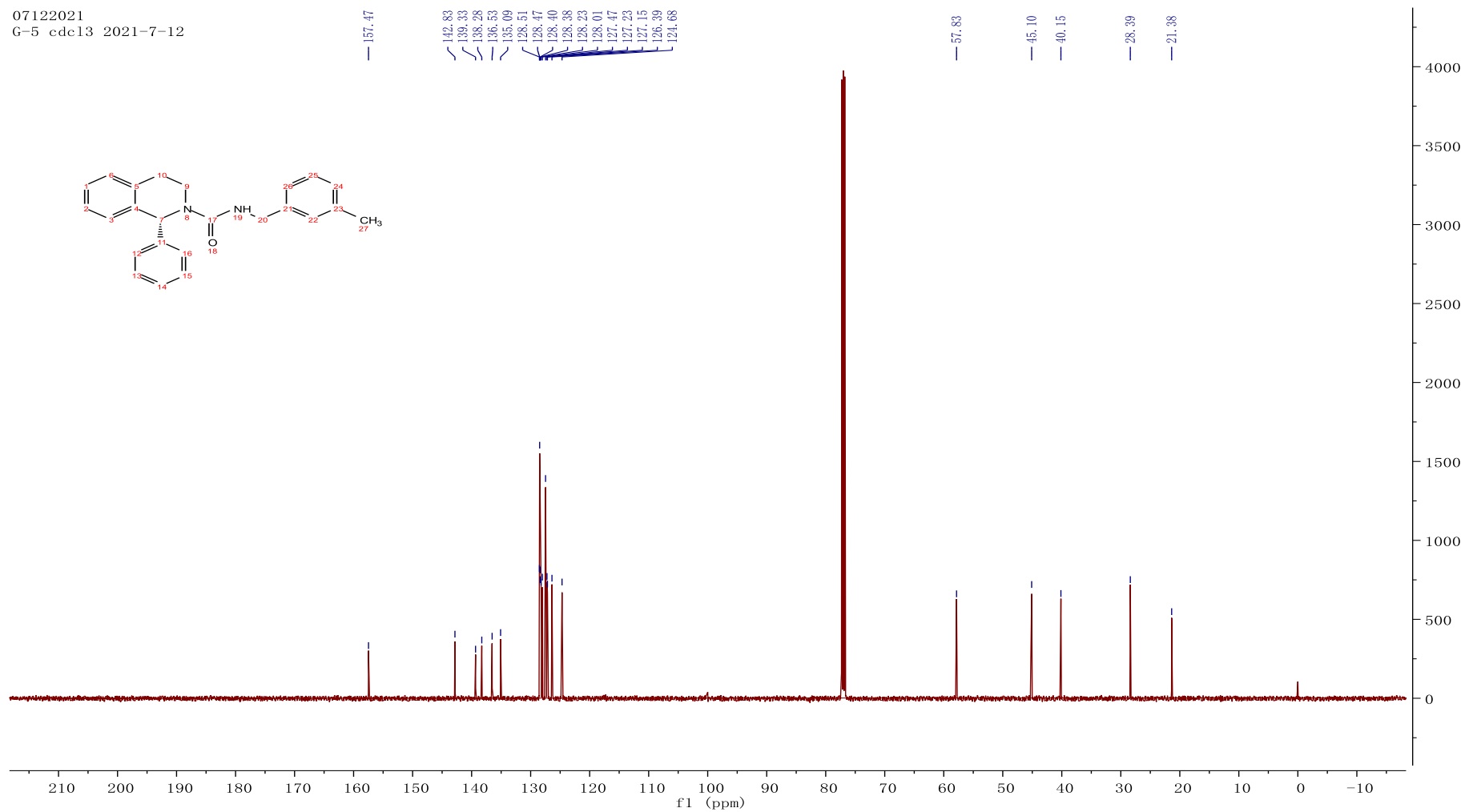
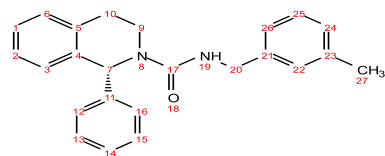


07122021  
G-5 cdc13 2021-7-12



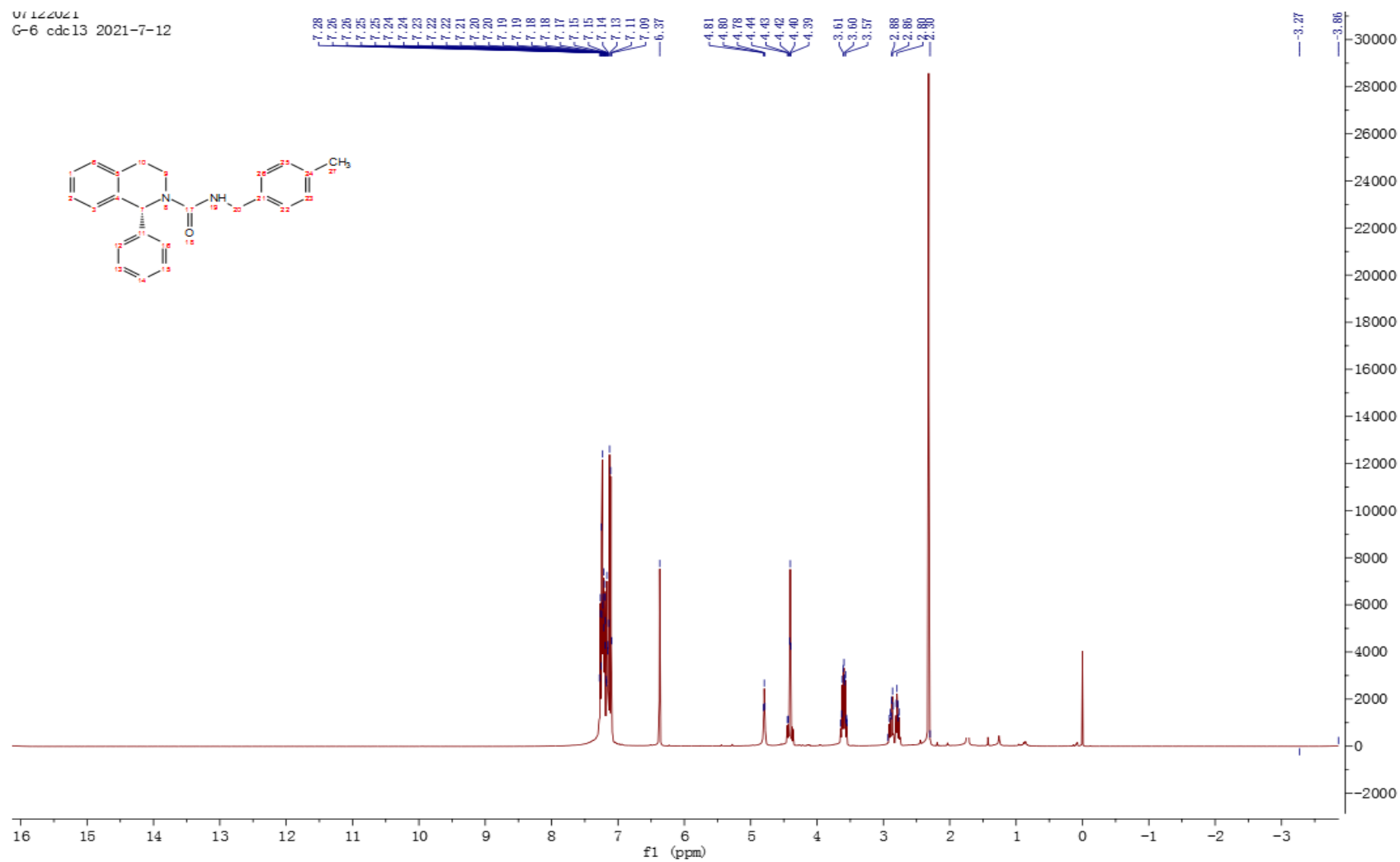
<sup>1</sup>H-NMR Spectral of **2q**

07122021  
G-5 cdc13 2021-7-12



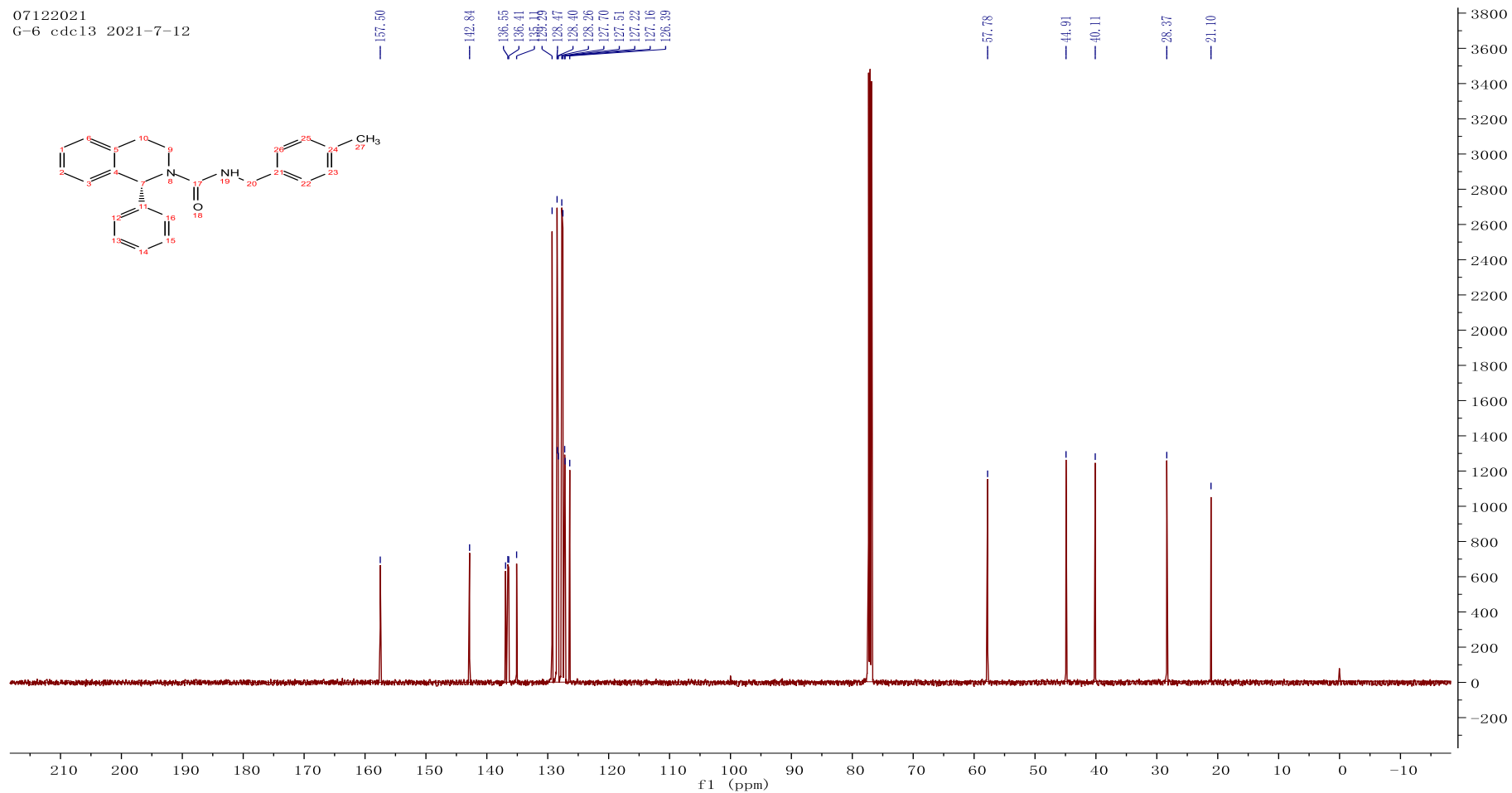
<sup>13</sup>C-NMR Spectral of 2q

07/12/2021  
G-6 cdc13 2021-7-12



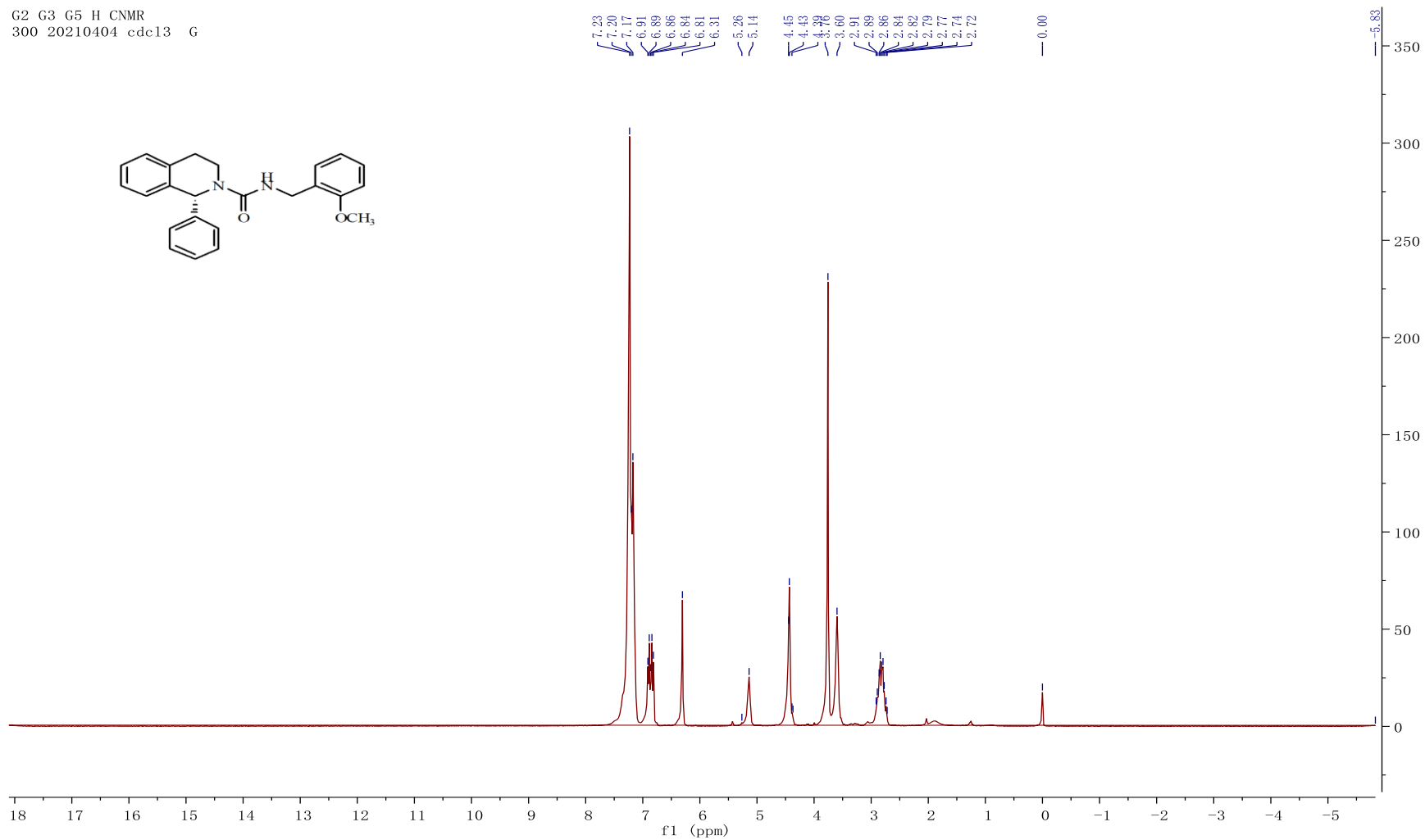
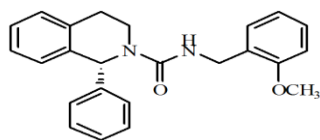
<sup>1</sup>H-NMR Spectral of **2r**

07122021  
G-6 cdc13 2021-7-12

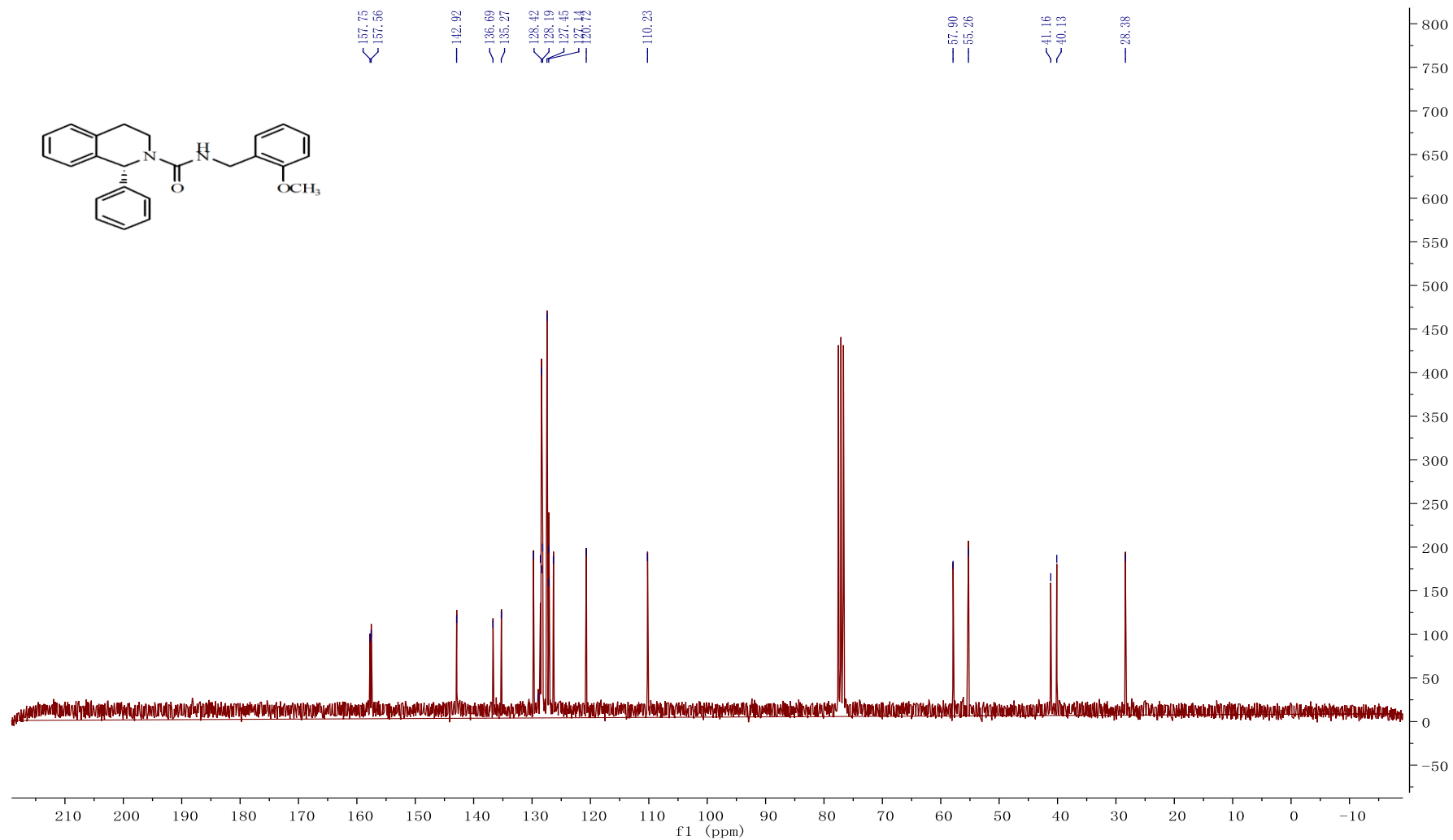
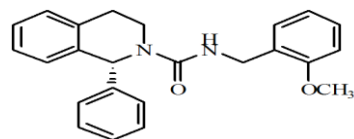


$^{13}\text{C}$ -NMR Spectral of **2r**

G2 G3 G5 H CNMR  
300 20210404 cdc13 G

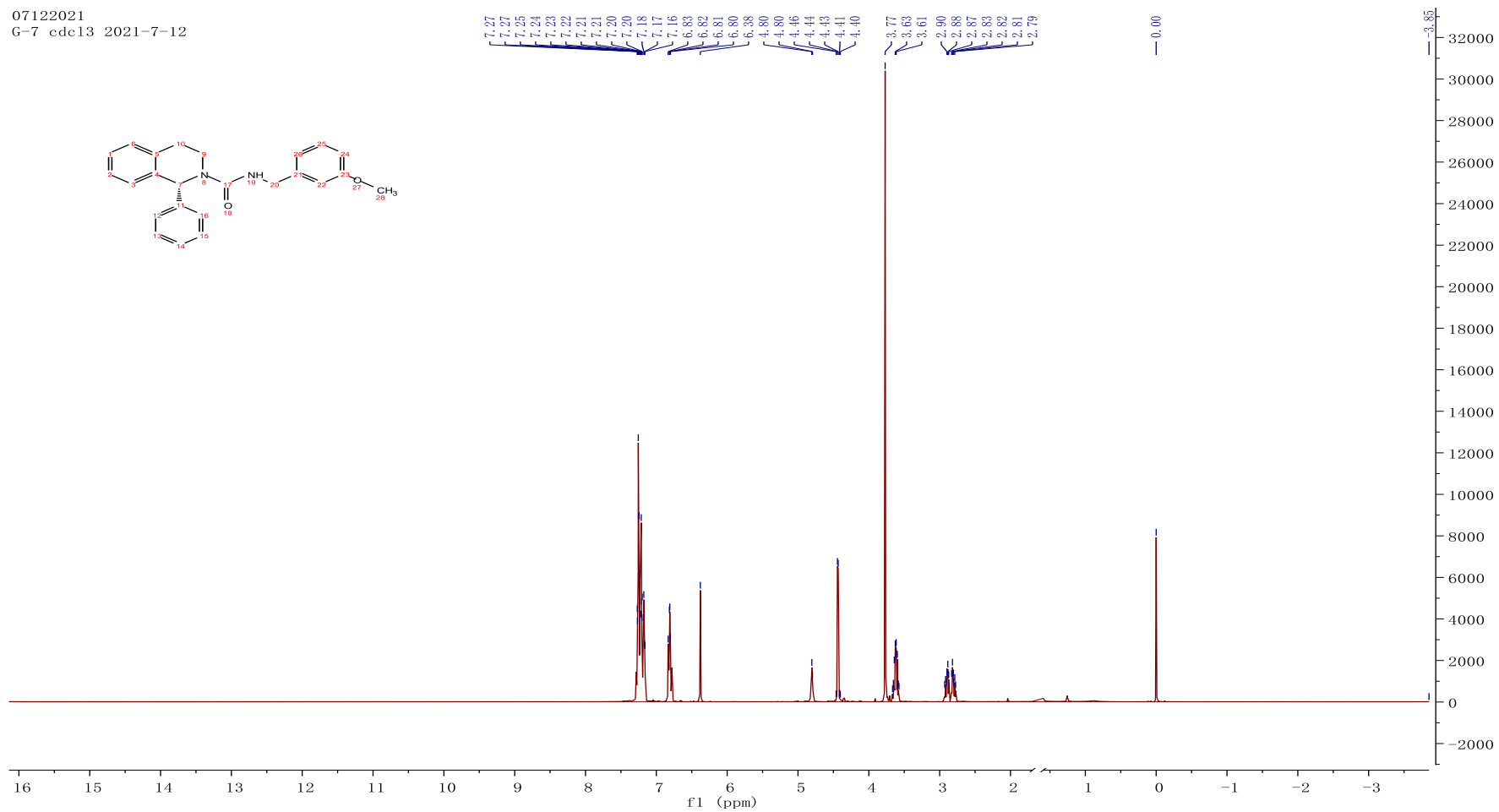
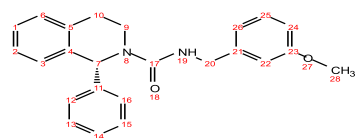


<sup>1</sup>H-NMR Spectral of **2s**

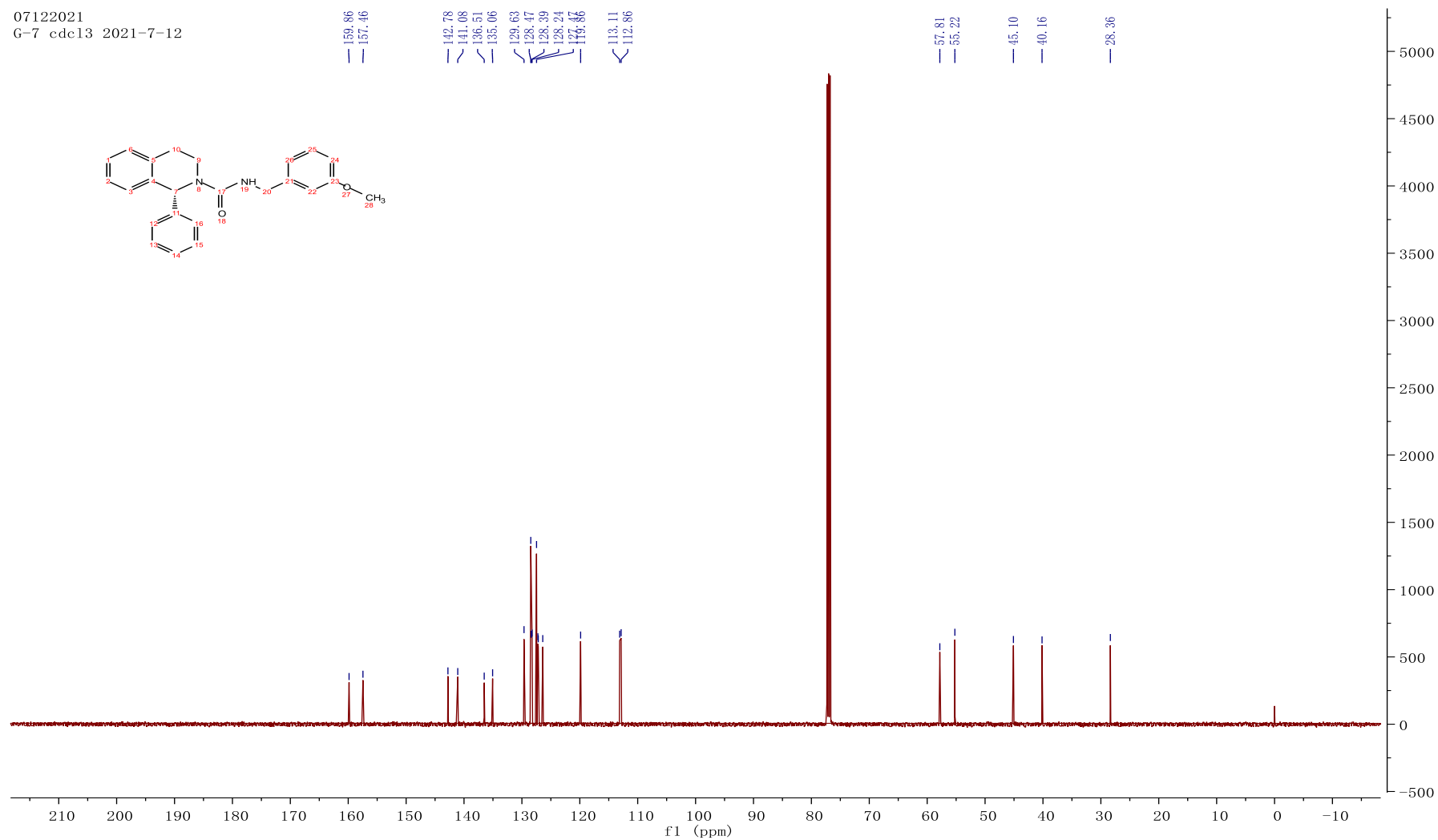


<sup>13</sup>C-NMR Spectral of **2s**

07122021  
G-7 cdc13 2021-7-12

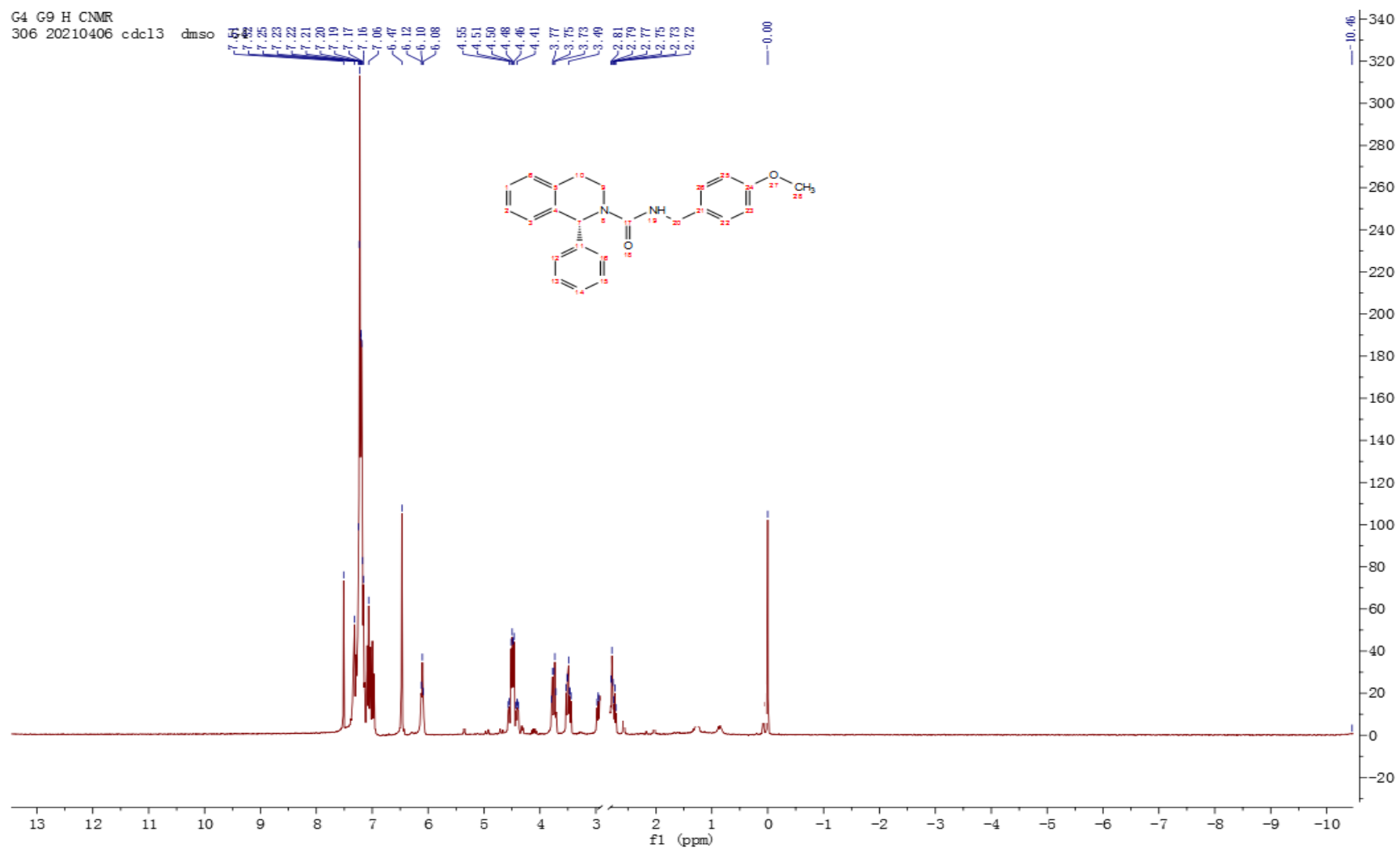
<sup>1</sup>H-NMR Spectral of **2t**

07122021  
G-7 cdc13 2021-7-12



<sup>13</sup>C-NMR Spectral of **2t**



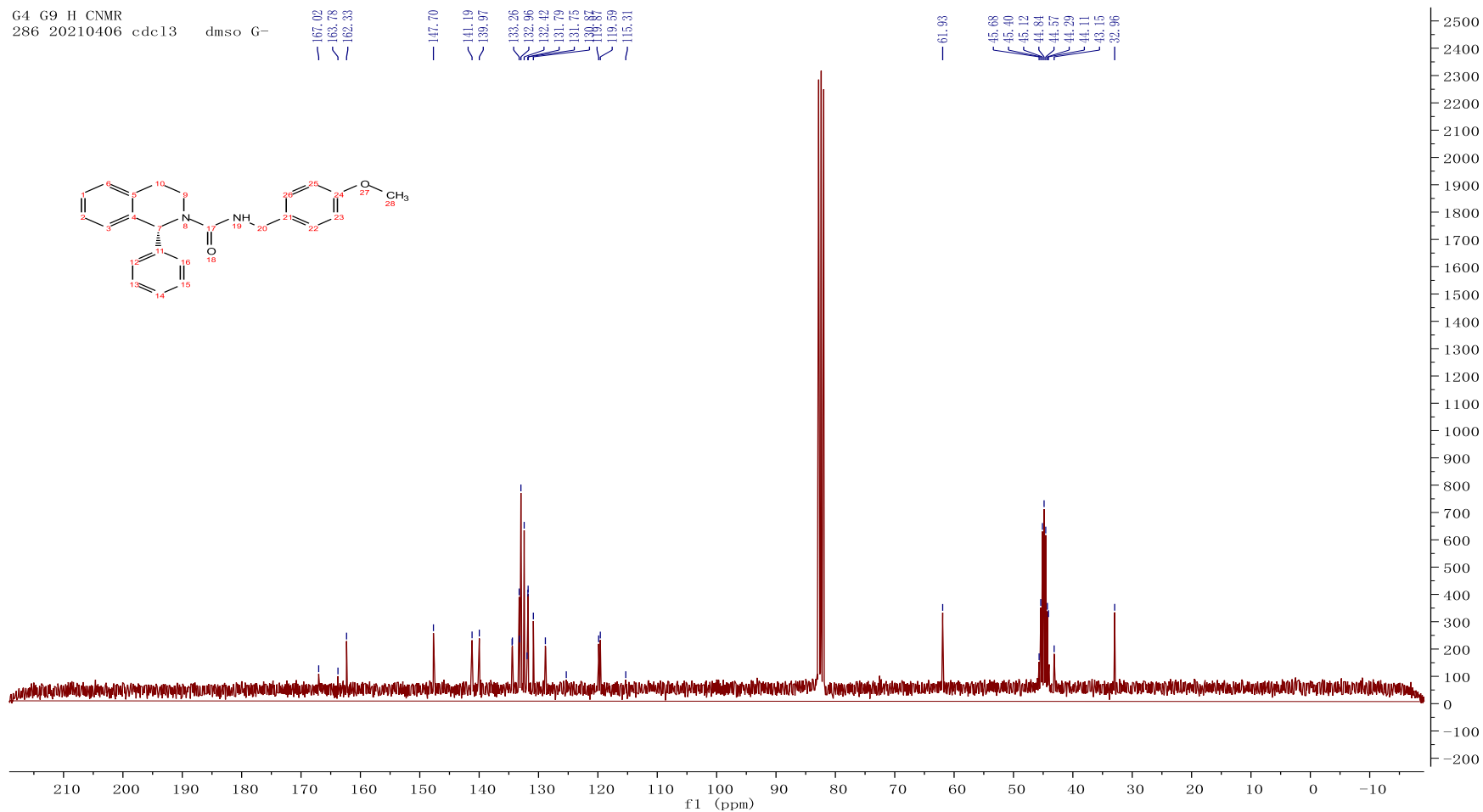
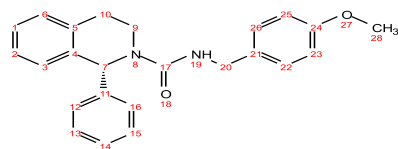


<sup>1</sup>H-NMR Spectral of **2u**

G4 G9 H CNMR  
286 20210406 cdc13 dms0 G-

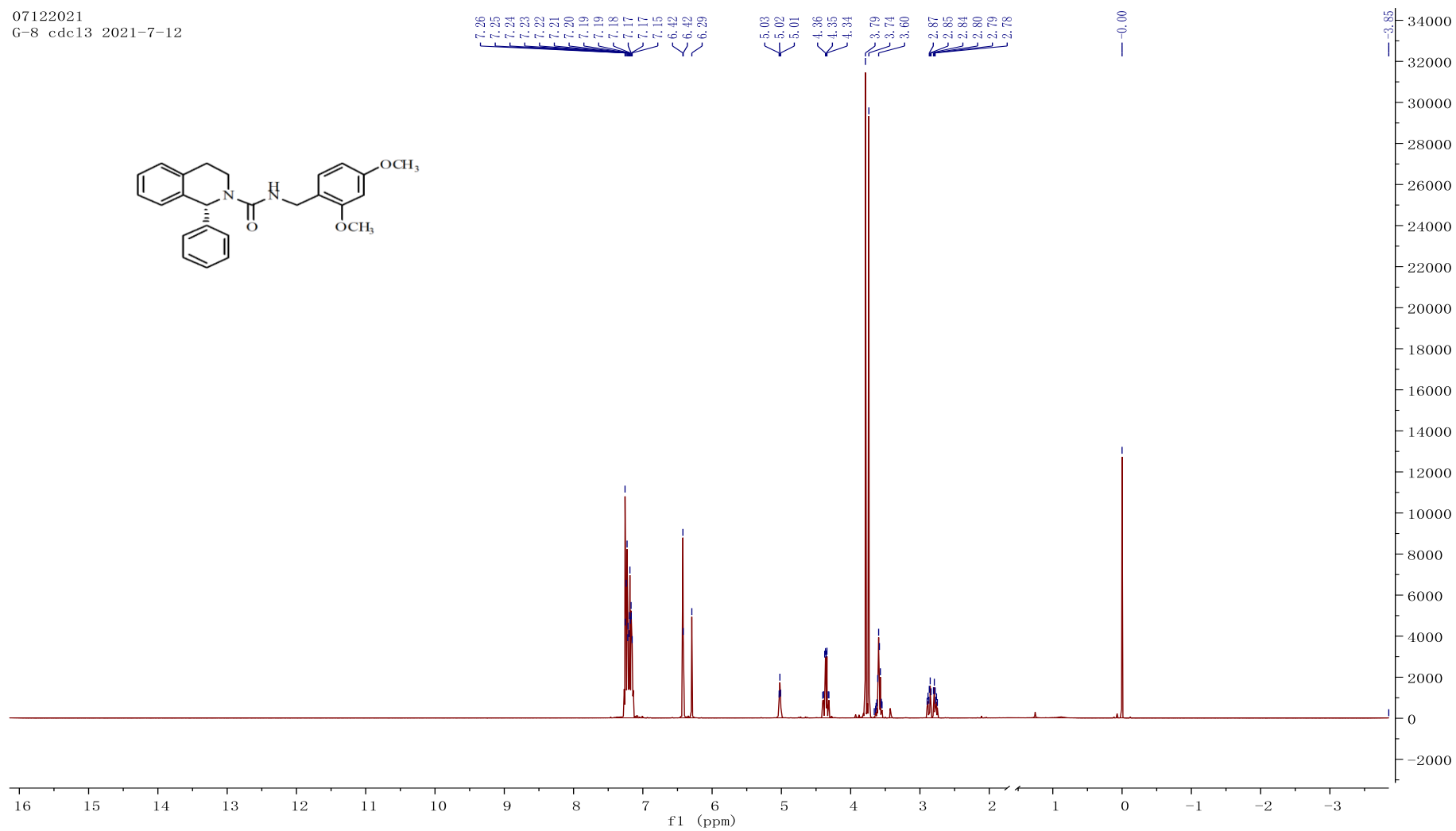
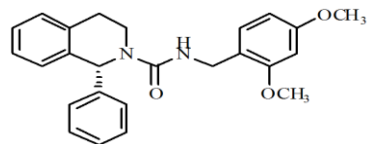
167.02  
163.78  
162.33  
147.70  
141.19  
139.97  
133.26  
132.96  
132.42  
131.79  
131.75  
130.87  
119.59  
115.31

61.93  
45.68  
45.40  
45.12  
44.84  
44.57  
44.29  
44.11  
43.15  
32.96



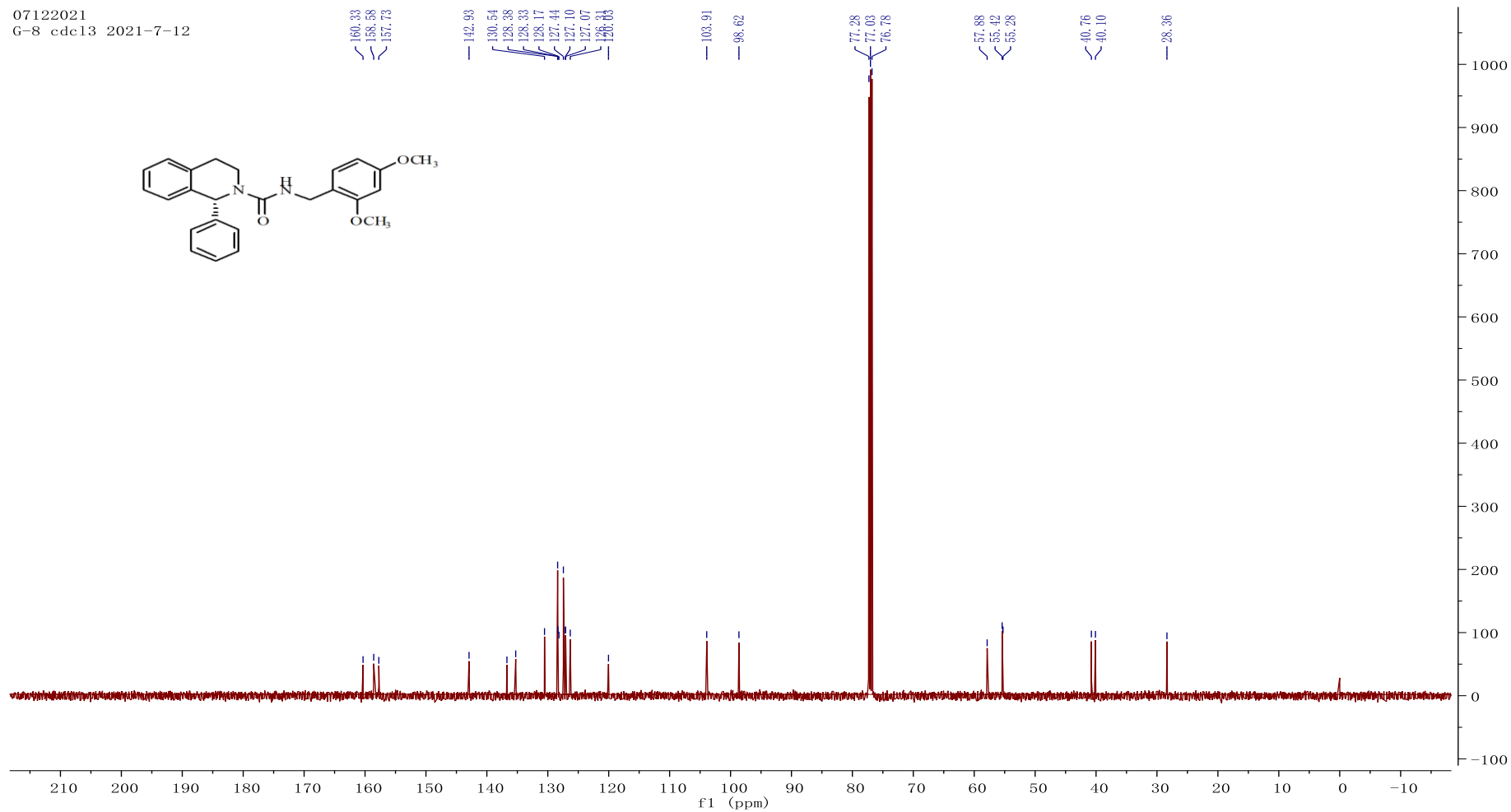
<sup>13</sup>C-NMR Spectral of **2u**

07122021  
G-8 cdc13 2021-7-12



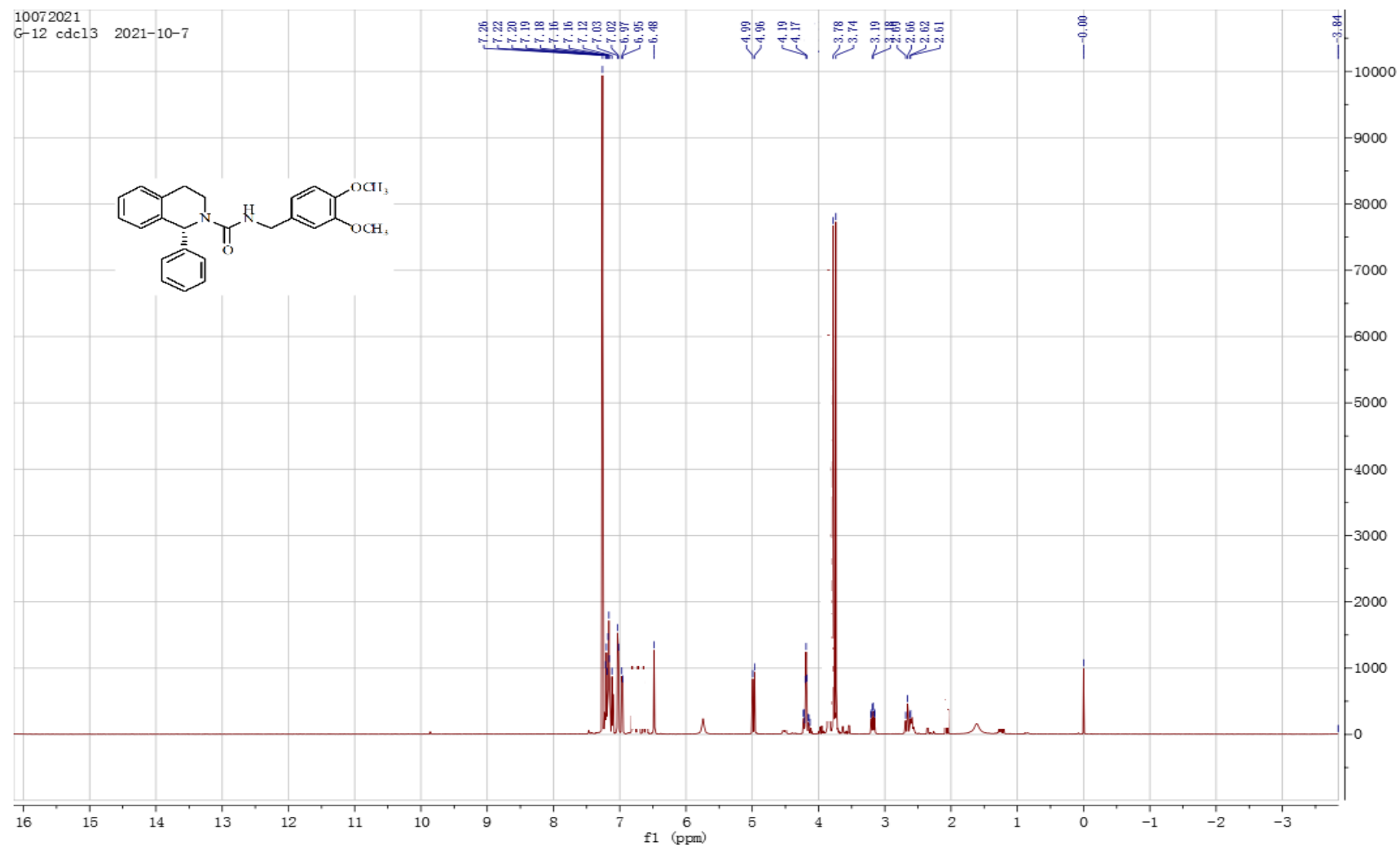
<sup>1</sup>H-NMR Spectral of **2v**

07122021  
G-8 cdc13 2021-7-12

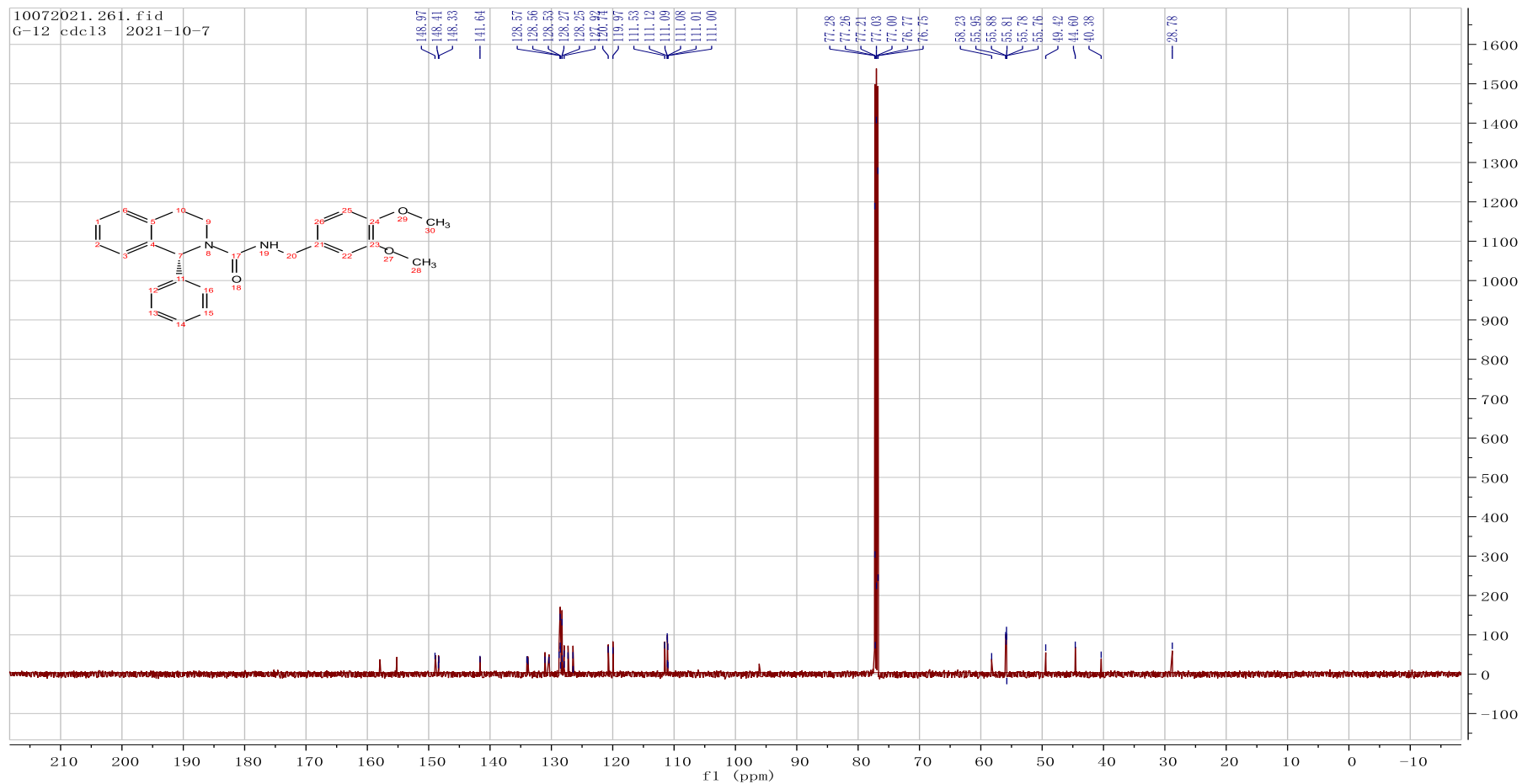


<sup>13</sup>C-NMR Spectral of **2v**

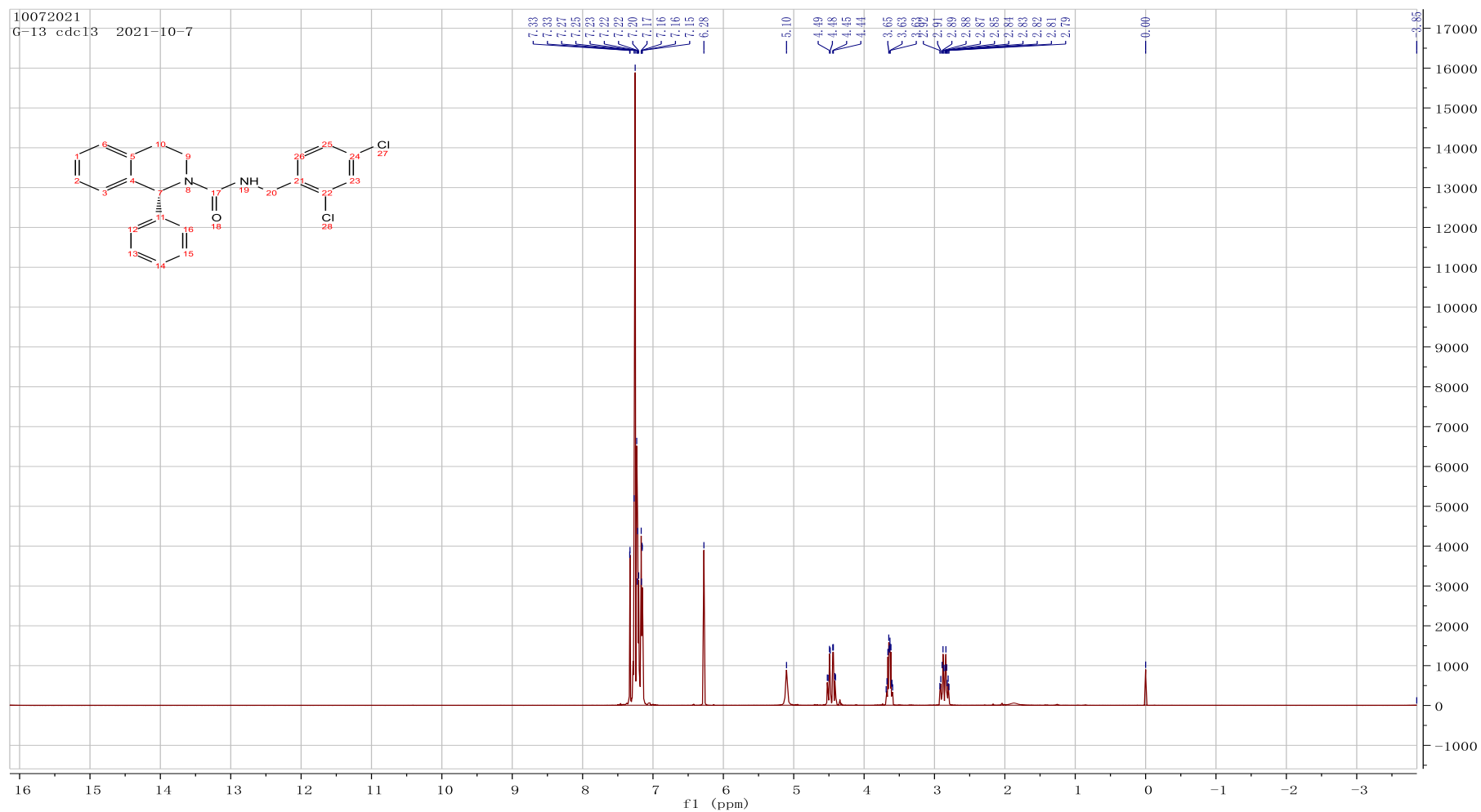
10072021  
G-12 cdc13 2021-10-7



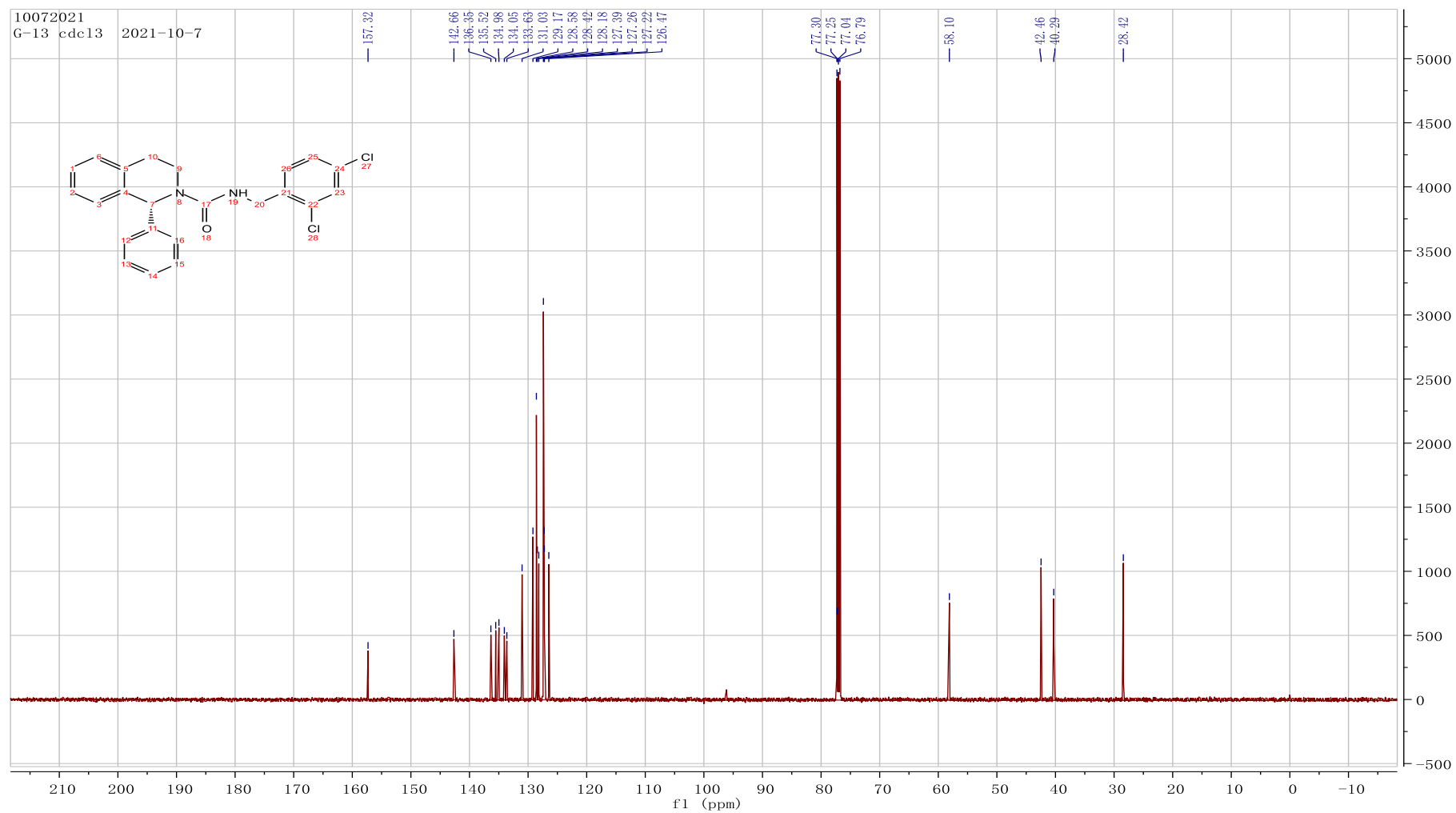
<sup>1</sup>H-NMR Spectral of 2w



$^{13}\text{C}$ -NMR Spectral of 2w



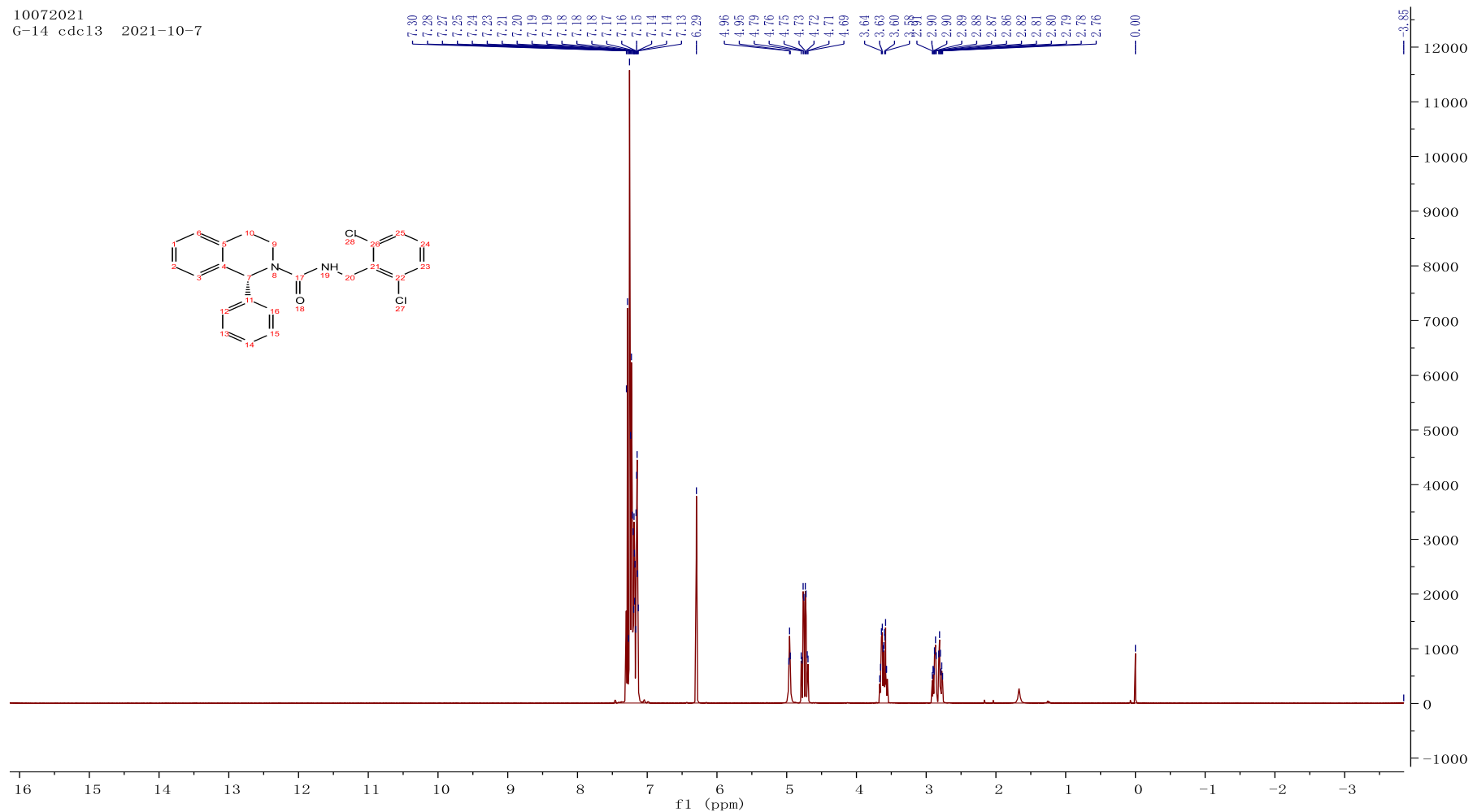
<sup>1</sup>H-NMR Spectral of **2x**



$^{13}\text{C}$ -NMR Spectral of **2x**

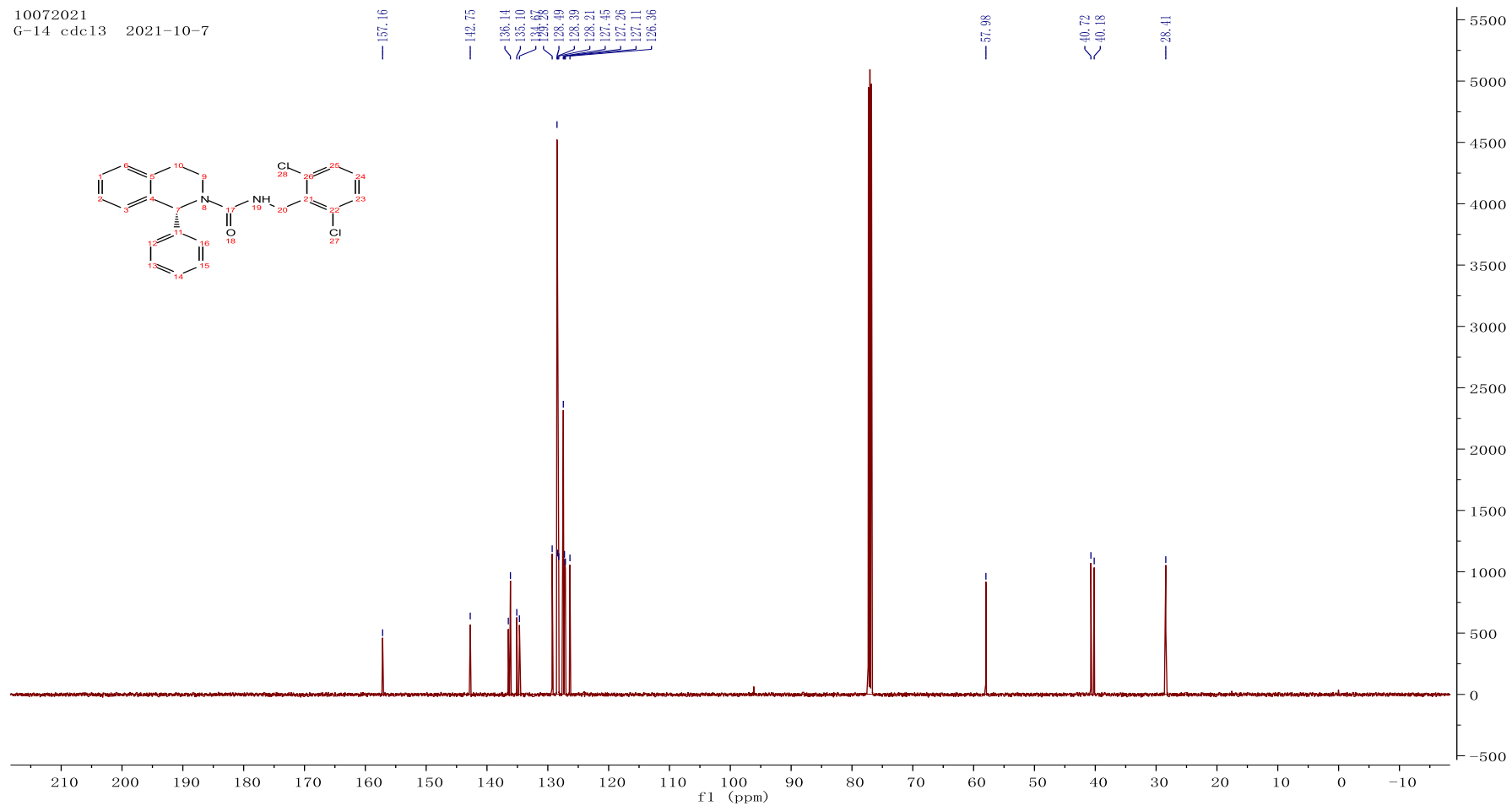


10072021  
G-14 cdc13 2021-10-7



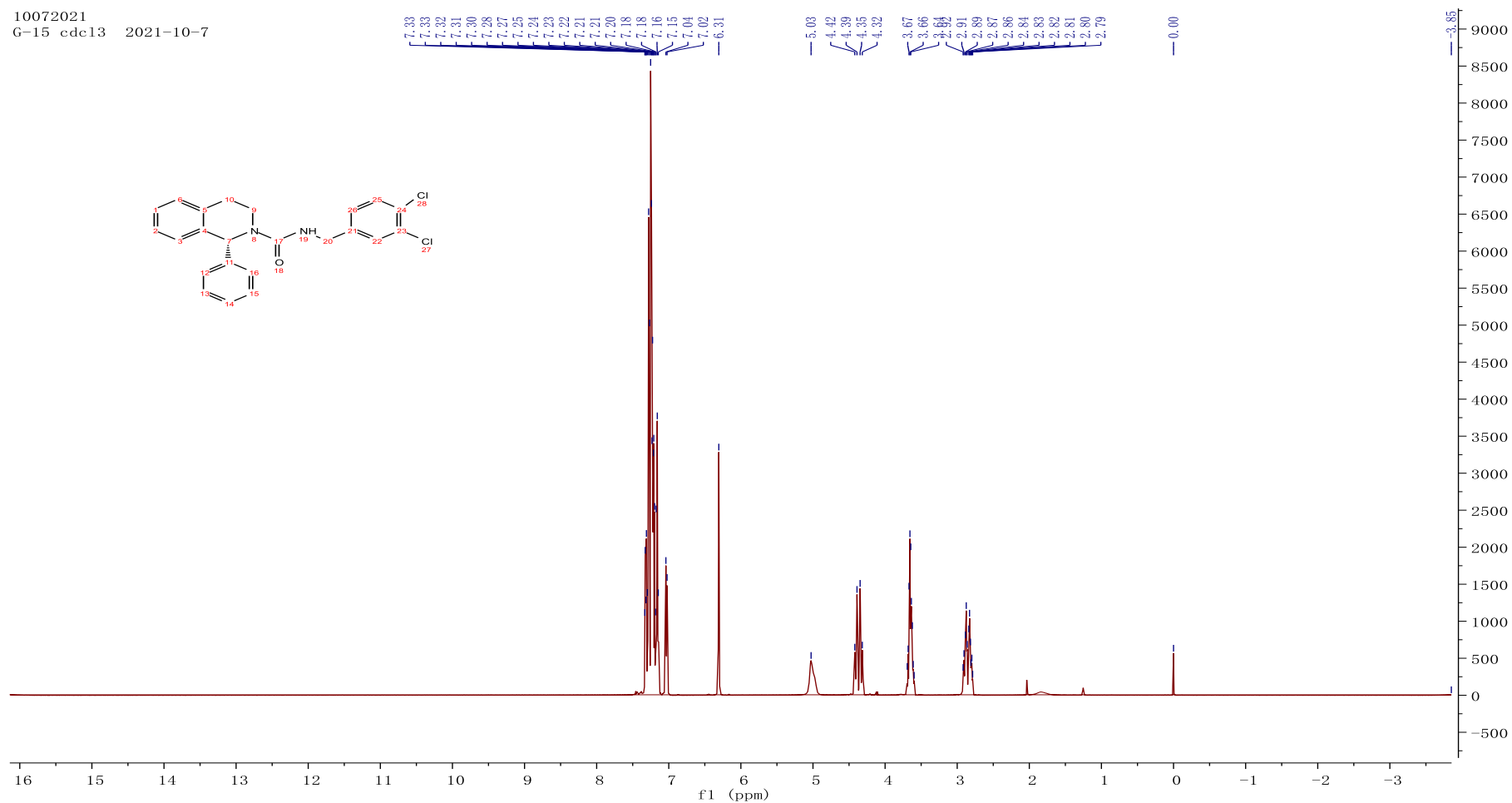
<sup>1</sup>H-NMR Spectral of **2y**

10072021  
G-14 cdc13 2021-10-7



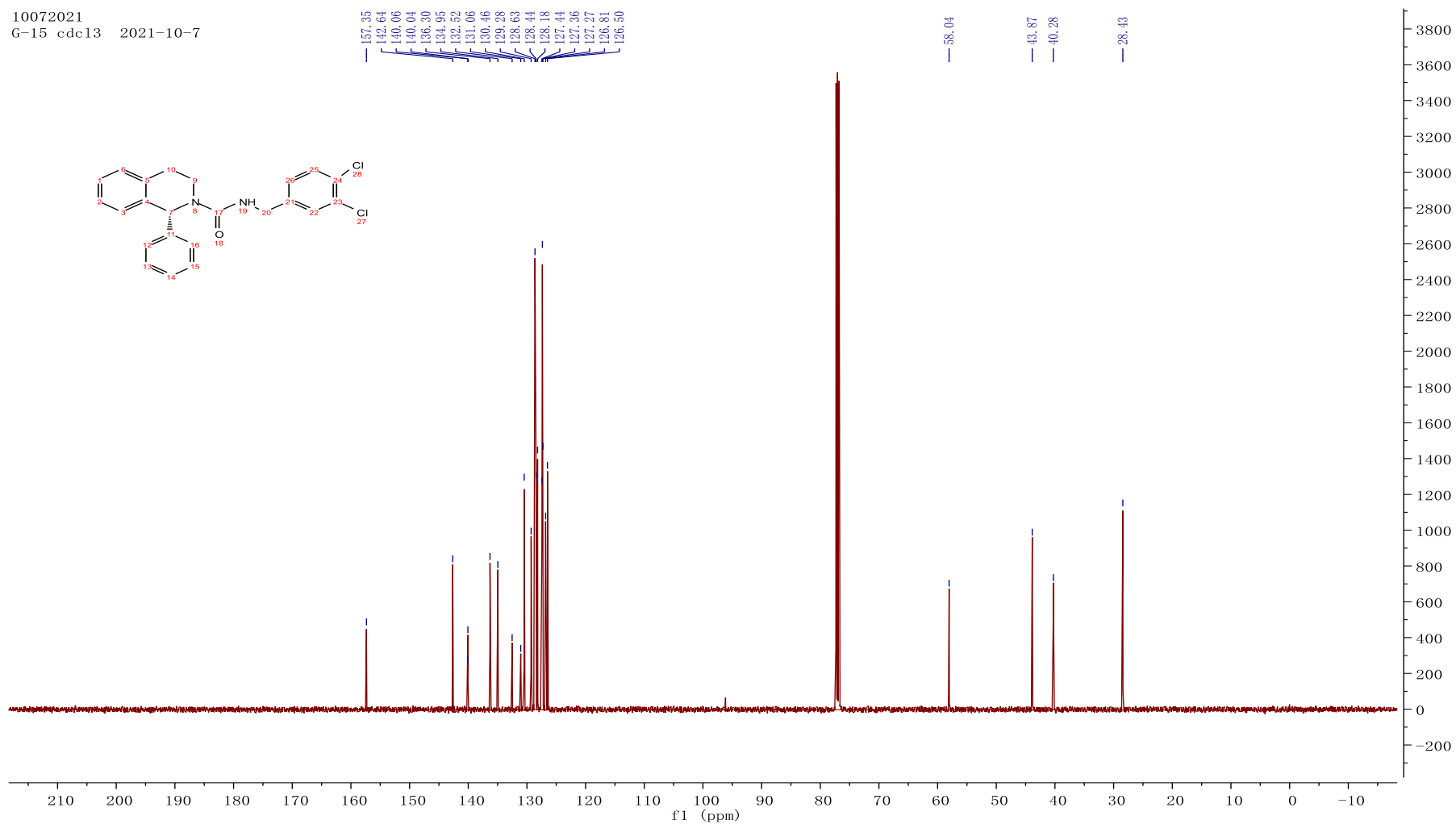
<sup>13</sup>C-NMR Spectral of **2y**

10072021  
G-15 cdcl3 2021-10-7



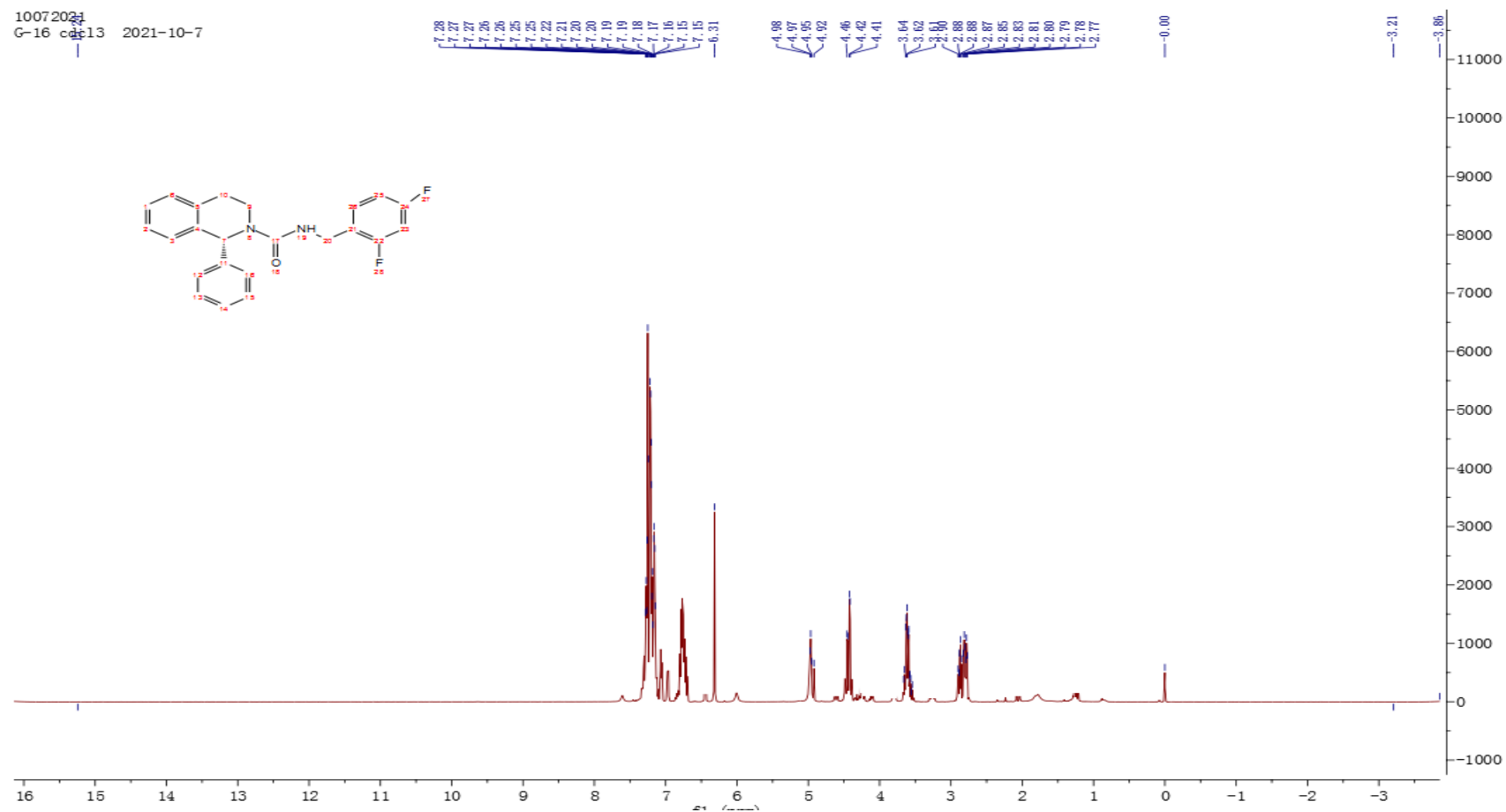
<sup>1</sup>H-NMR Spectral of **2z**

10072021  
G-15 cdc13 2021-10-7



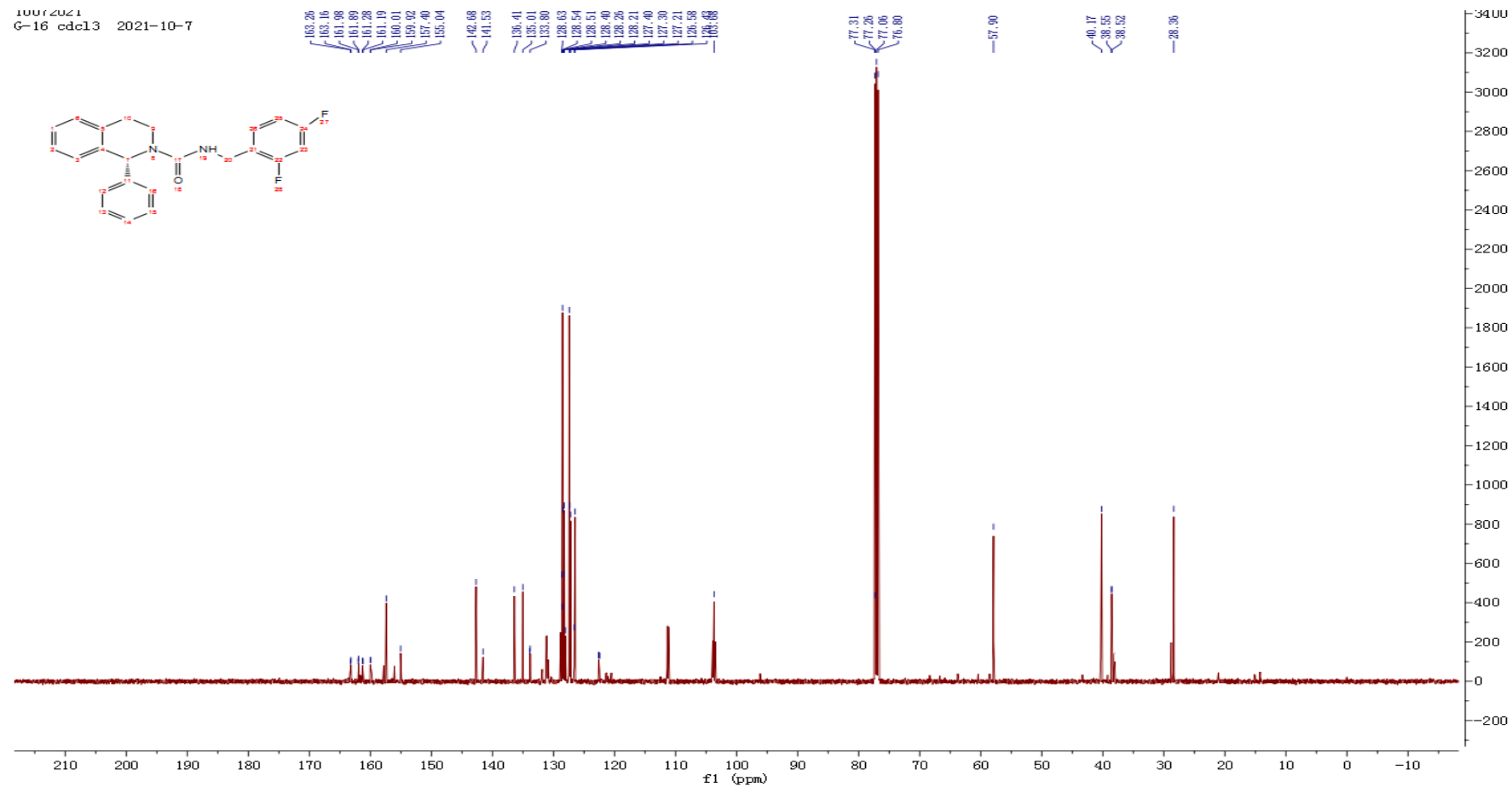
$^{13}\text{C}$ -NMR Spectral of **2z**

10072021  
G-16 cdc-113 2021-10-7



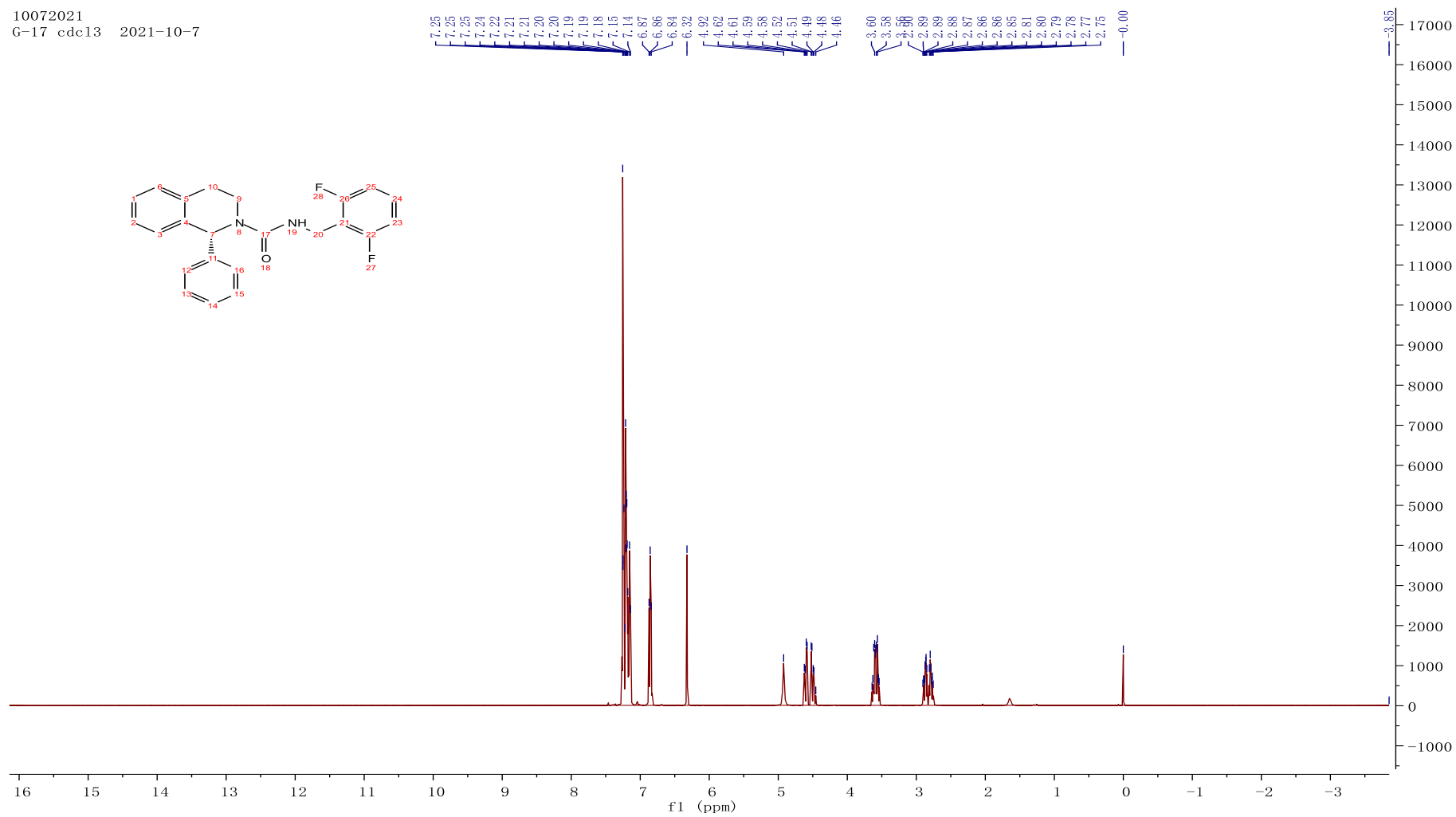
$^1\text{H}$ -NMR Spectral of **2aa**

10072021  
G-16 cdcl3 2021-10-7



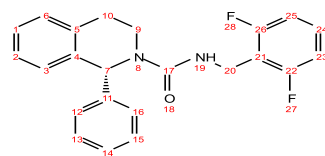
<sup>13</sup>C-NMR Spectral of 2aa

10072021  
G-17 cdc13 2021-10-7

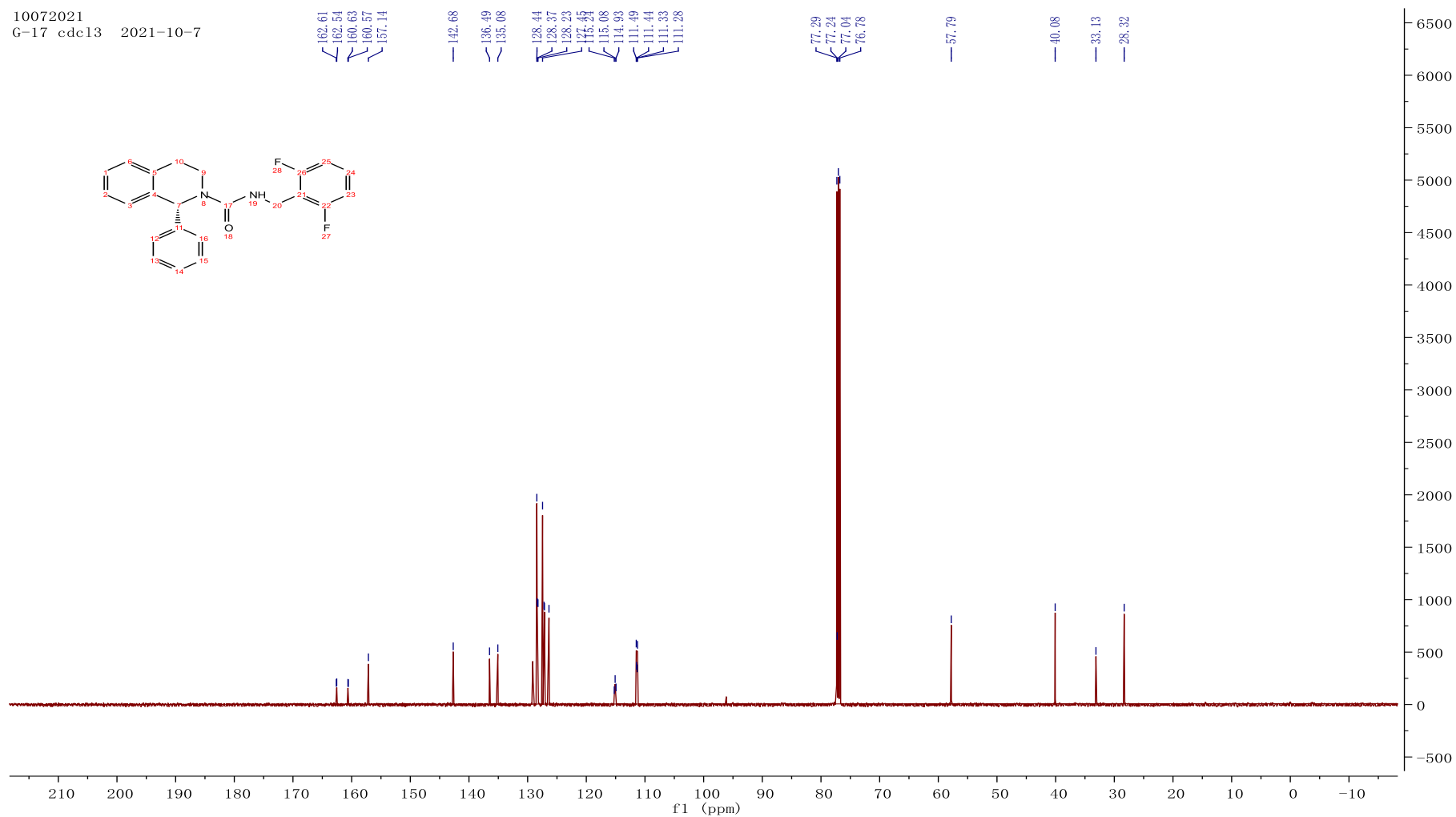


<sup>1</sup>H-NMR Spectral of **2ab**

10072021  
G-17 cdcl3 2021-10-7



162.61 162.54 160.63 160.57 157.14  
142.68 136.49 135.08  
128.44 128.37 128.23 127.45 115.24 115.08 114.93 111.49 111.44 111.33 111.28  
77.29 77.24 77.04 76.78  
57.79  
40.08 33.13 28.32

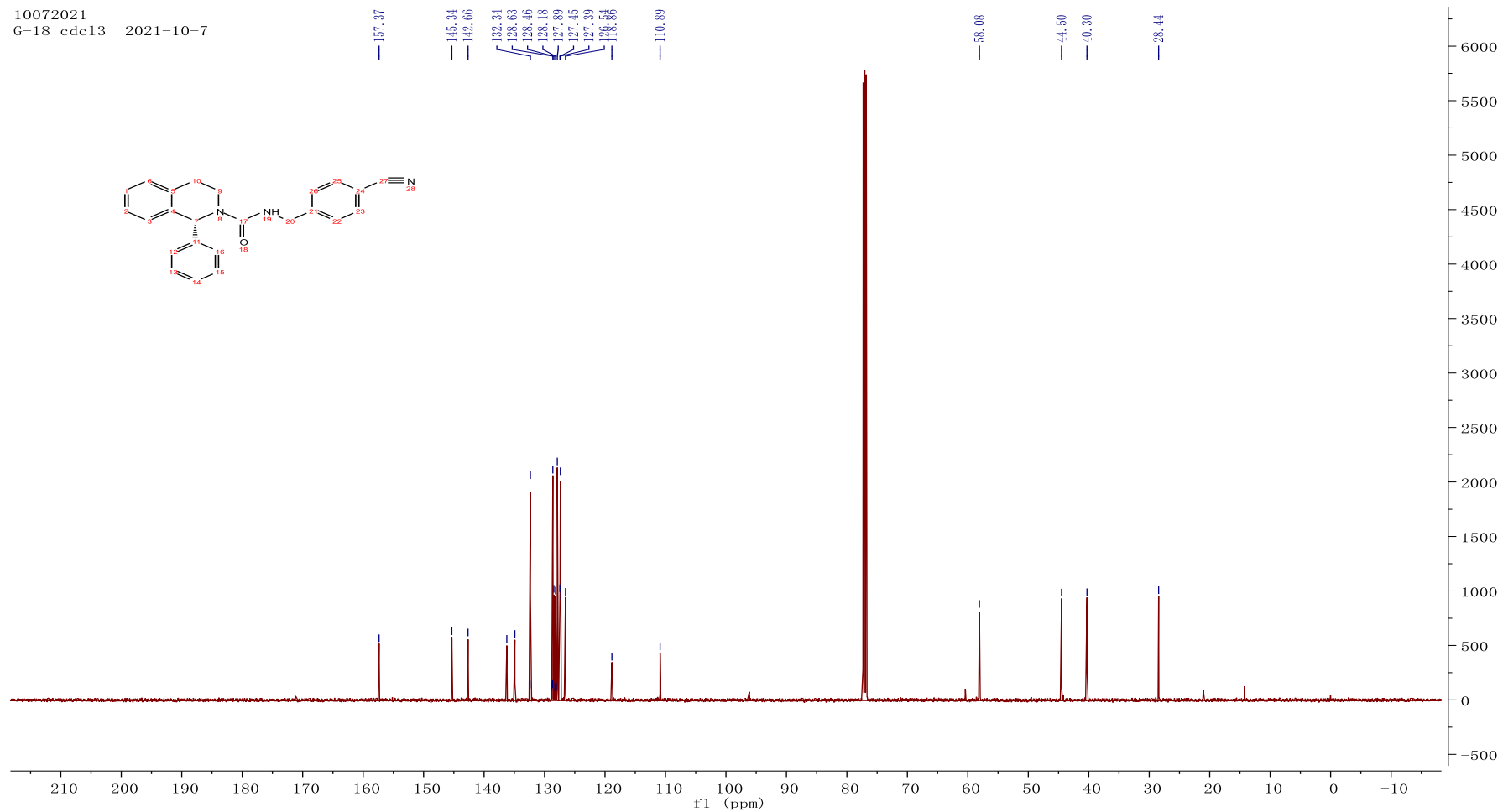


<sup>13</sup>C-NMR Spectral of **2ab**

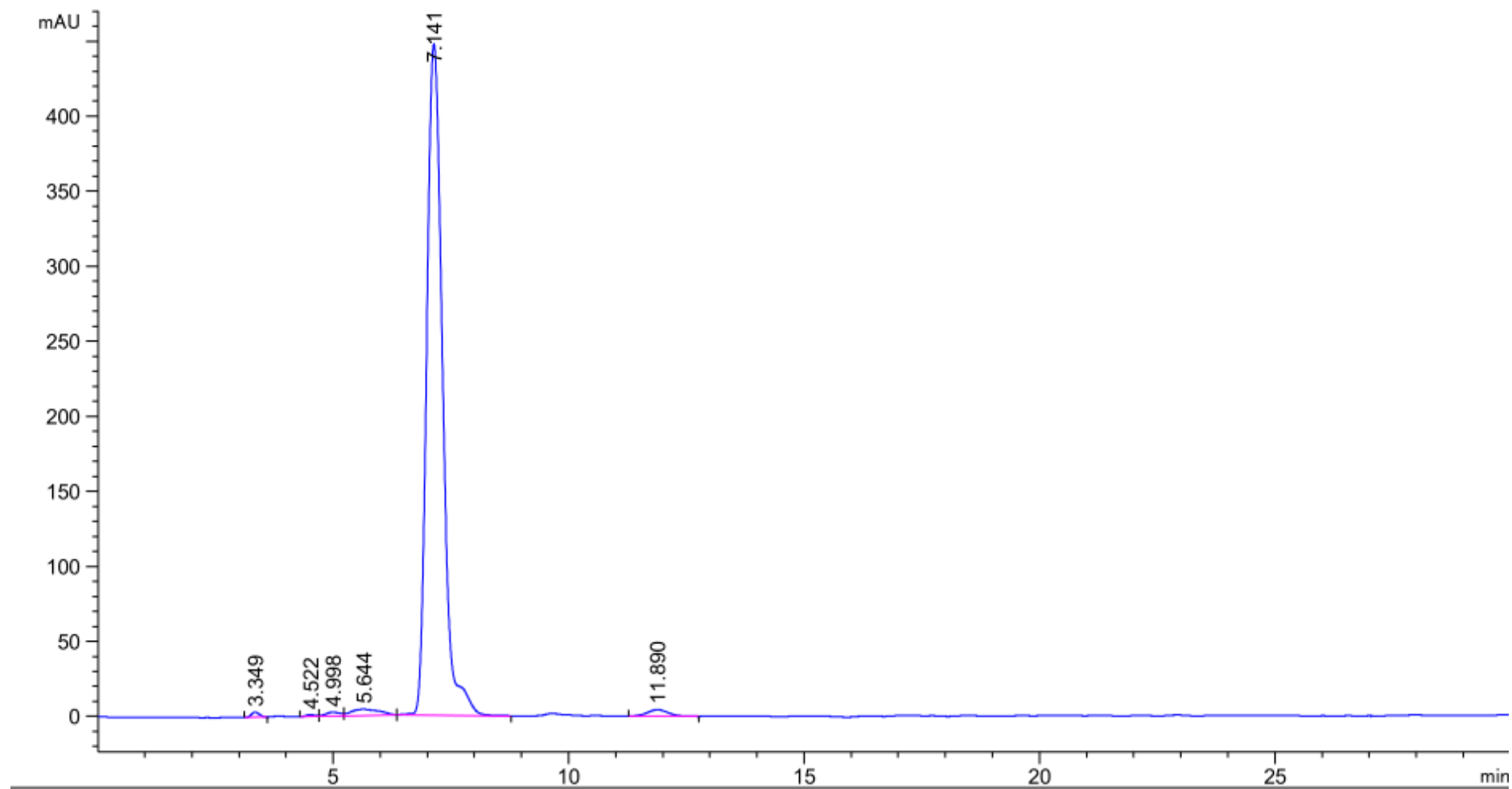




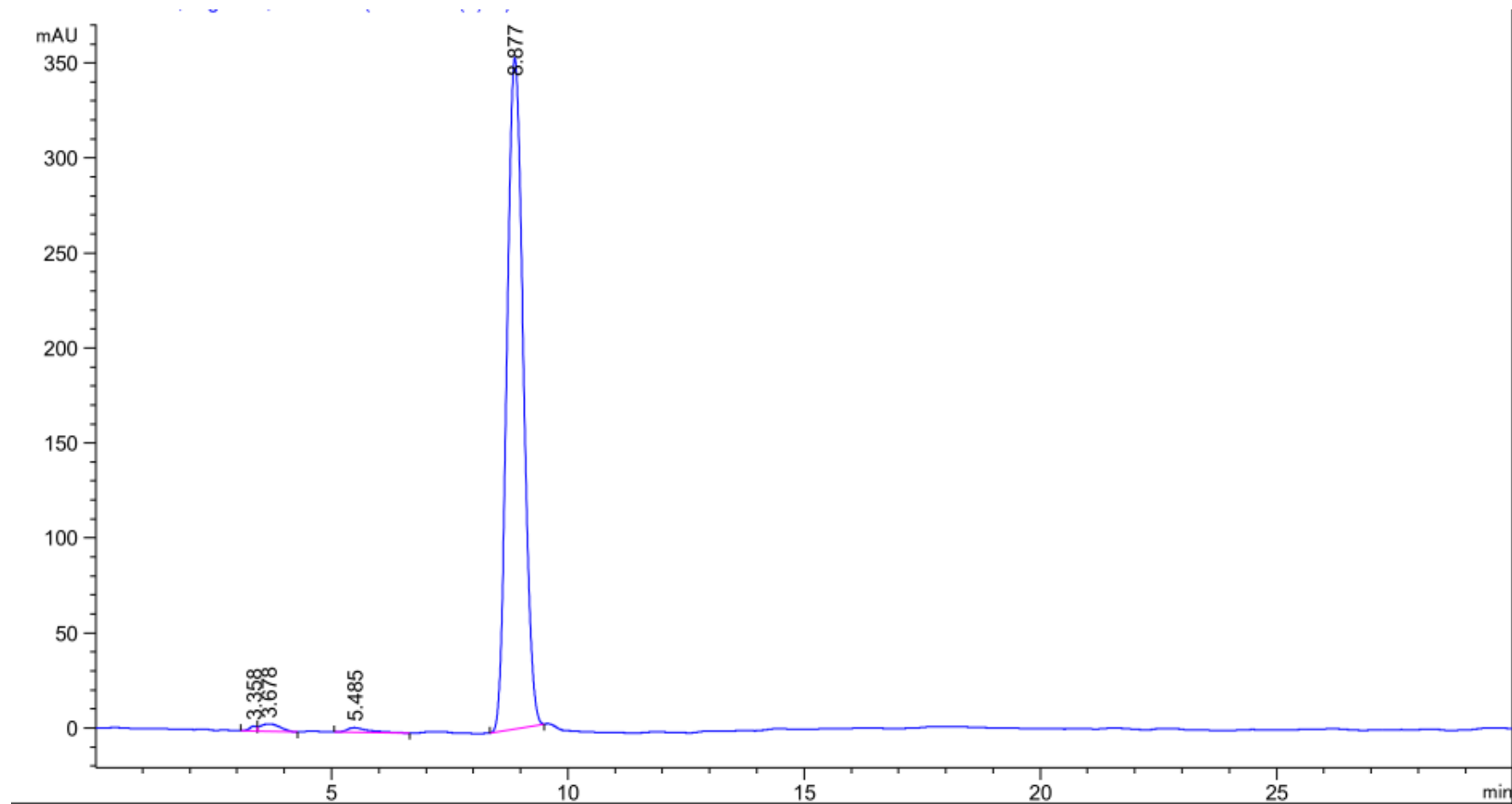
10072021  
G-18 cdc13 2021-10-7



$^{13}\text{C}$ -NMR Spectral of **2ac**

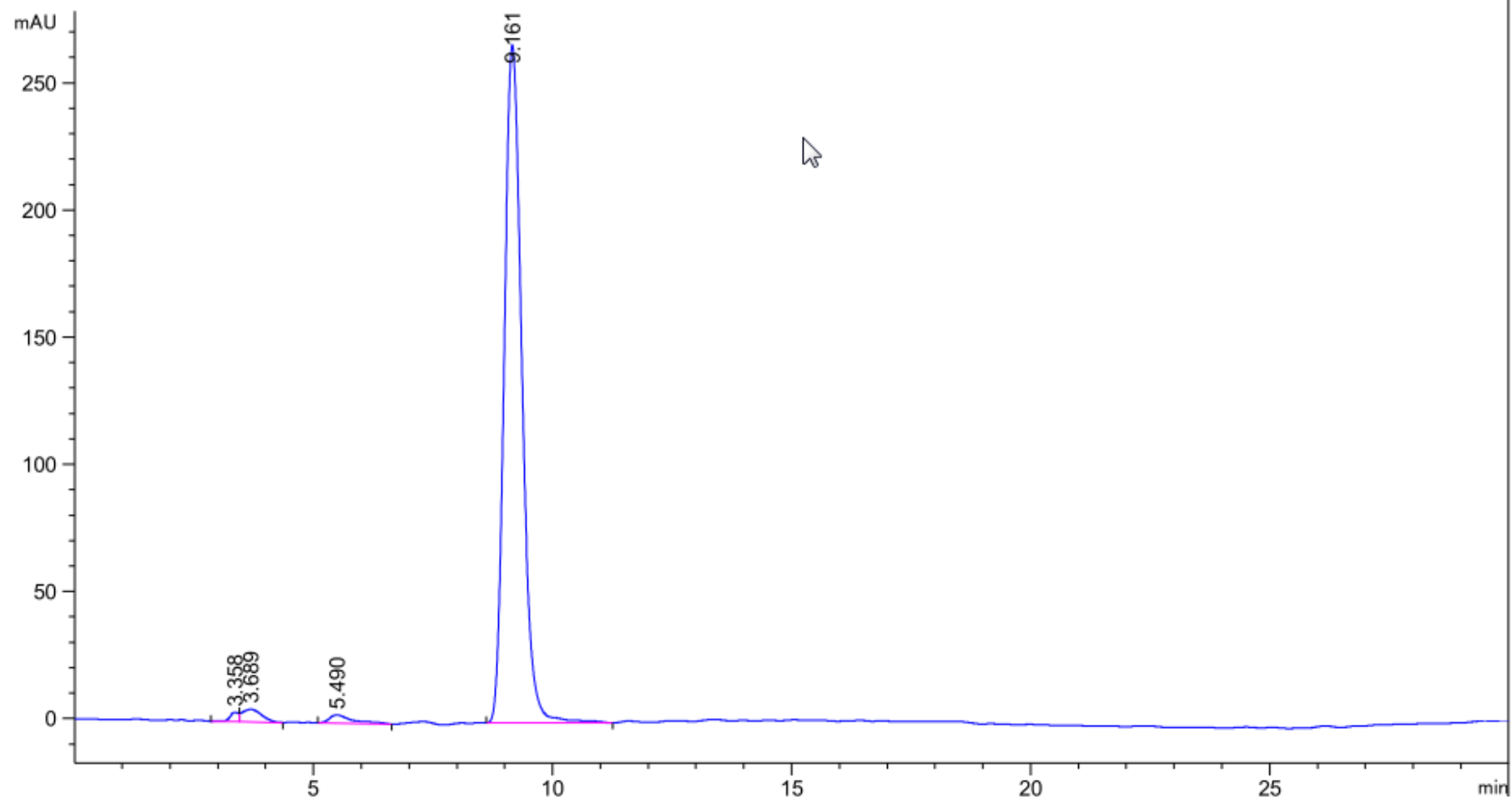


HPLC of compound 2d

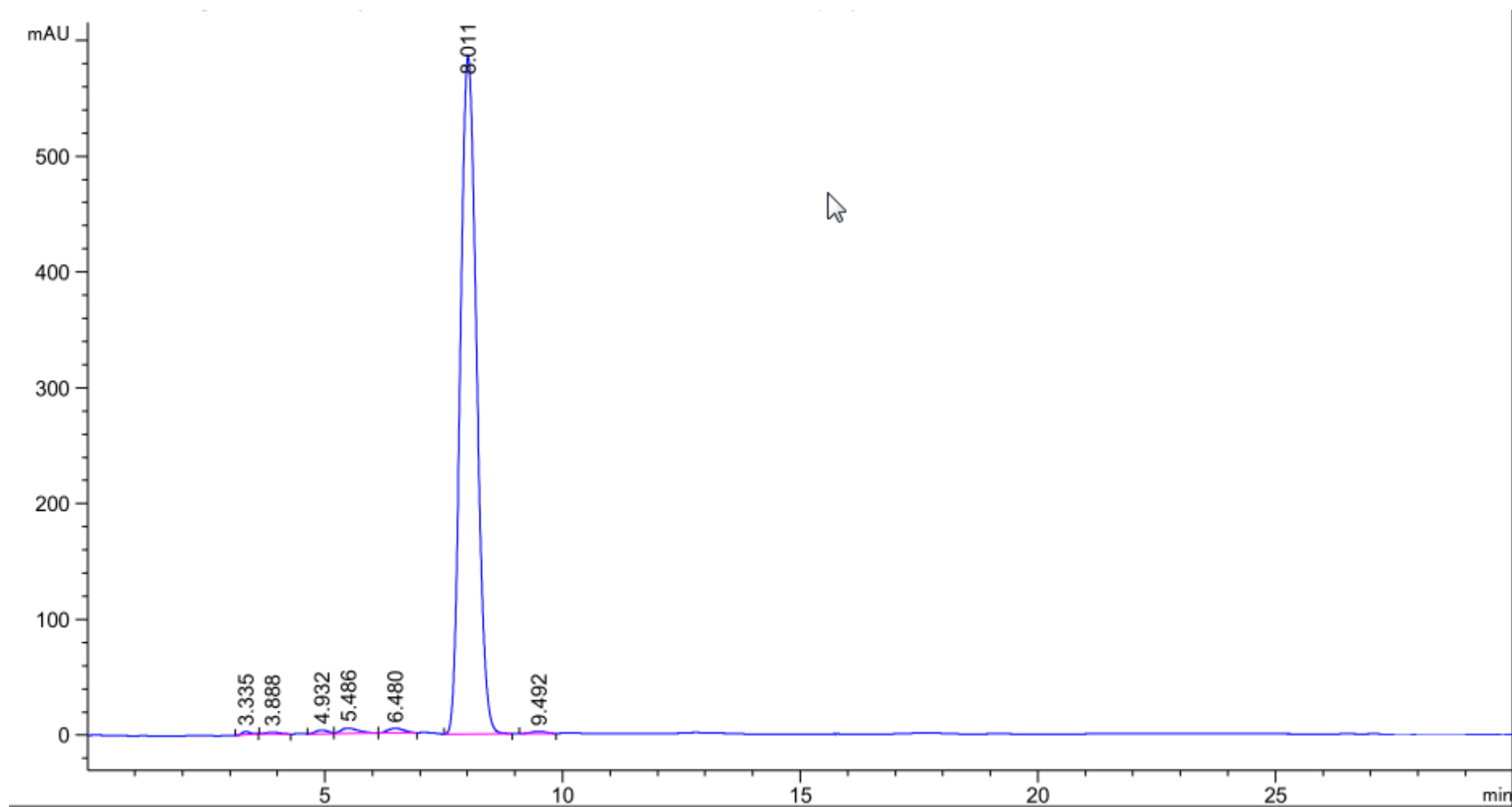


HPLC of compound 2i

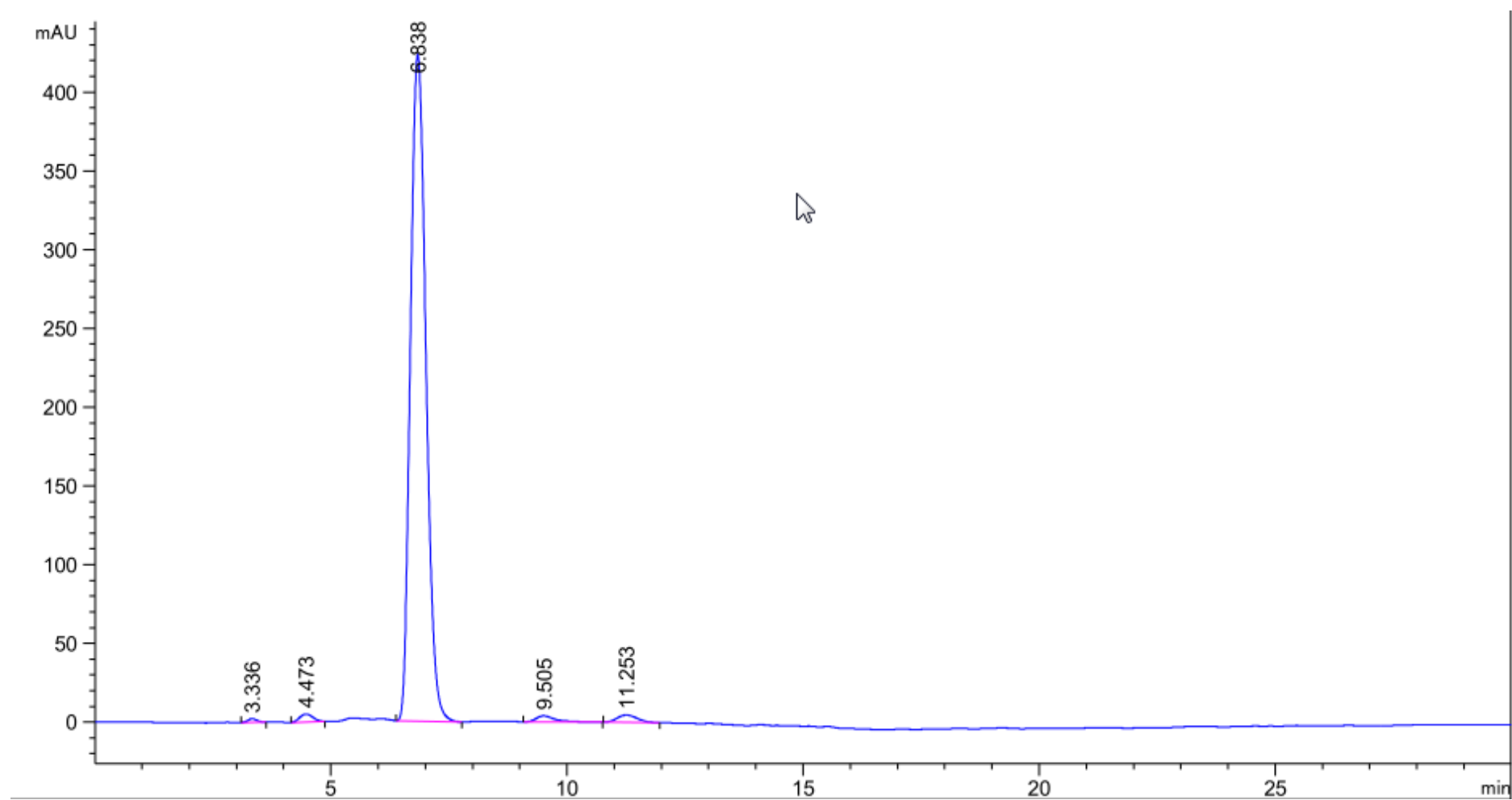
DAD1 A, Sig=204,4 Ref=off (004-44-2j(2).D)



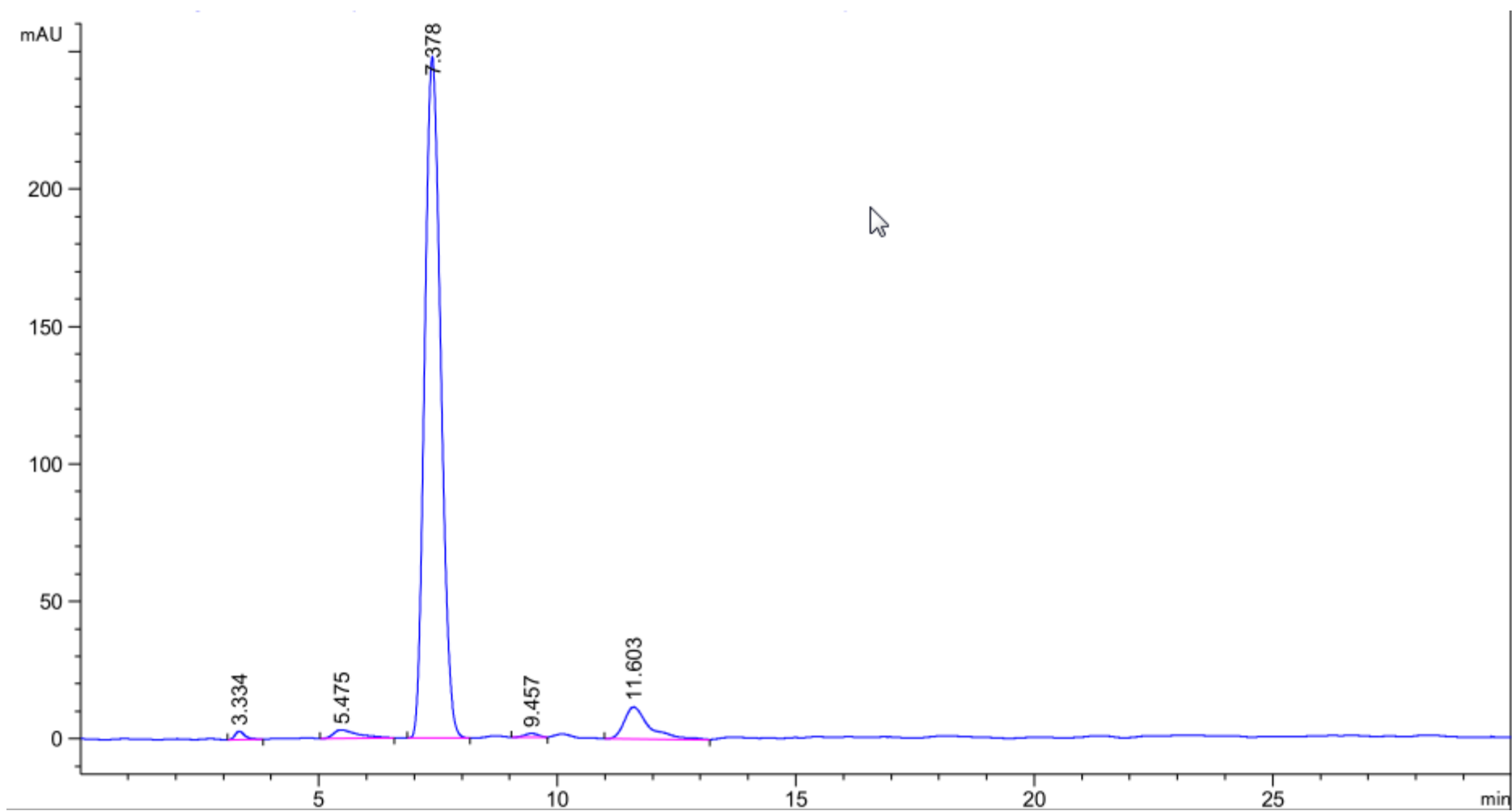
HPLC of compound 2j



HPLC of compound 2p



HPLC of compound 2t



HPLC of compound 2v